

# SUPPLEMENT.

## The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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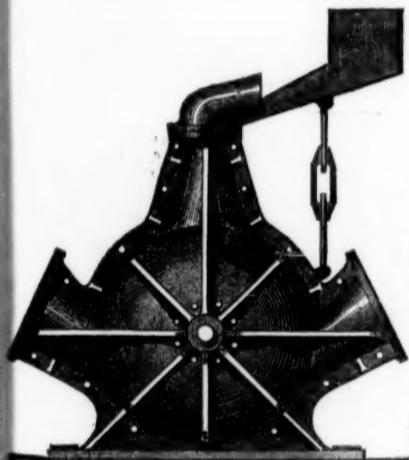
No. 2445.—VOL. LII.

LONDON, SATURDAY, JULY 1, 1882.

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JORDAN'S PATENT  
**PULVERISING MACHINE,**  
FOR REDUCING  
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SIMPLE.  
DURABLE.  
EFFECTIVE

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OTHER  
SPECIALITIES.  
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HAND-POWER  
ROCK DRILLS  
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MINING PLANT  
Illustrated Catalogues on application.

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And other wearing parts of Machinery.  
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CYLINDERS, &c.

PHOSPHOR BRONZE  
WIRE, TUBES,  
SHEET, RODS  
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STEAM  
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**PHOSPHOR BRONZE  
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SEVEN YEARS IN SUCCESSION  
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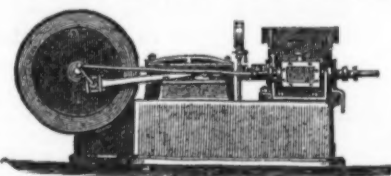
	Inches.	min.	sec.
Normandy Rock Drill and Air Compressor, bored	1 1/2 x 10 1/2	in	2 10
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Their DRILLS have most satisfactorily stood the TEST of LONG and CONTINUOUS WORK in the HARDEST KNOWN ROCK in numerous mines in Great Britain and other countries clearly proving their DURABILITY and POWER.

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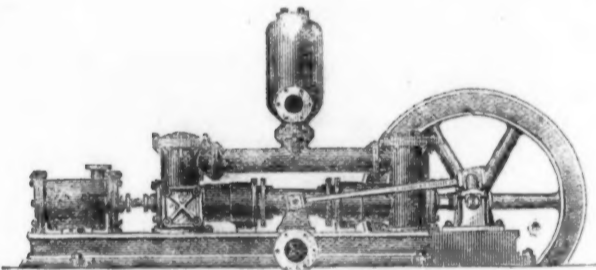
(LATE OMMANNEY AND TATHAM),

SALFORD, MANCHESTER.

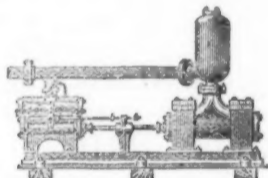


## FLY WHEEL PUMPING ENGINES

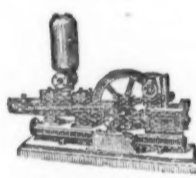
ARE THE ONLY RELIABLE ENGINES FOR STEADY WORK AND ECONOMY.



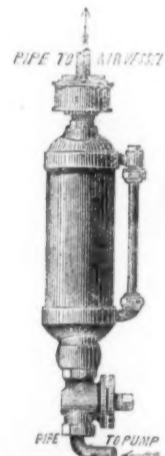
The "Original" Double-acting Ram Pumping Engine.



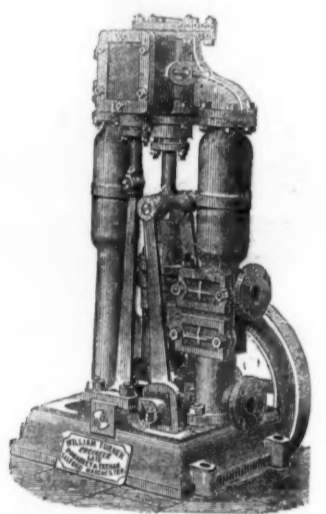
Hydraulic Pumping Engine for Collieries.  
Worked by Natural Head of Water, and saving much manual labour.



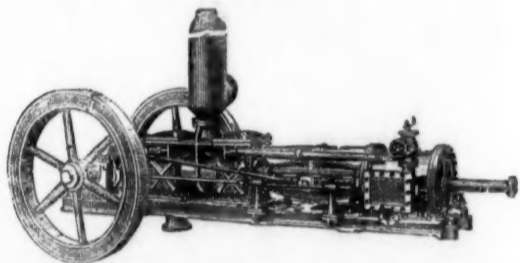
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For Feeding Boilers, Gas Works, Tanneries, Breweries, and all Pumping Purposes.



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These Injectors are being universally adopted for Pumping Engines for Collieries & Waterworks.



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Direct Double-acting Piston Pumping Engine.

PUMPING ENGINES of all descriptions.

WINDING Ditto.

AIR COMPRESSORS.

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VALVES for Steam, Water, &c.

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THE EXCELSIOR DIRECT-ACTING PUMPS.

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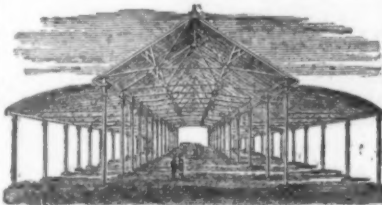
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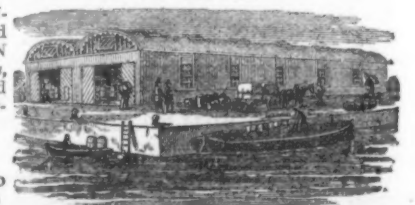
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GALVANISED OR PAINTED CORRUGATED IRON ROOFING PLATES and TILES. HEAVY CORRUGATED IRON PLATES for fireproof floors, roadways, parapets, &c. (for producing which F.M. and Co. have recently laid down powerful Hydraulic Machinery). Wrought-iron Troughing, and General Construction. Wrought Ironwork.

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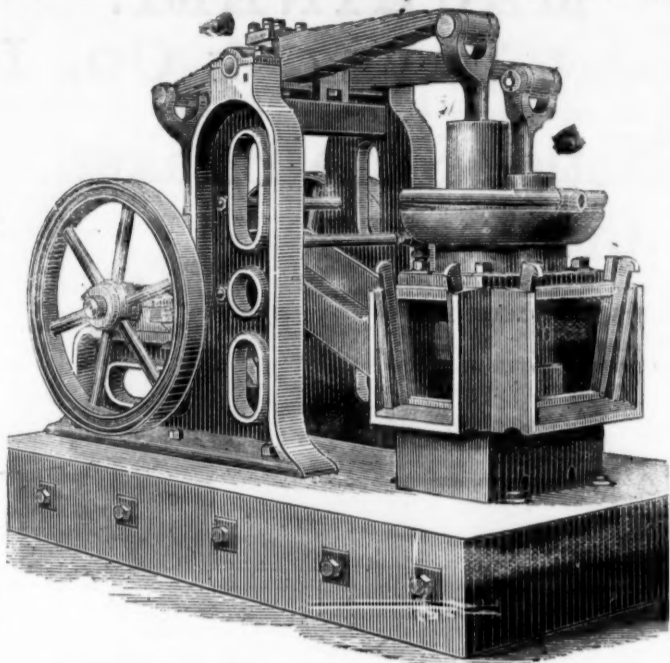
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DUNHAM'S  
AMERICAN SPRING BEAM  
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COMBINING ALL THE FEATURES WHICH  
EXPERIENCE HAS BROUGHT ABOUT IN REDUCING

**GOLD QUARTZ.**

These Machines are guaranteed to  
reduce more Quartz with less applied  
power than any Machines in the market.



THIS MACHINE CAN BE SEEN  
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**"GOLD QUARTZ,"**

INVITATIONS WITH  
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N.B.—Quartz from abroad reduced  
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ARE THE

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Manufacturers by STEAM POWER of all kinds of Wire Web, EXTRA TREBLE STRONG for  
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Shipping Orders Executed with the Greatest Dispatch

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CAST STEEL FOR TOOLS. CHISEL. SHEAR. BLISTER. & SPRING STEEL

MINING TOOLS & FILES of superior quality.

EDGE TOOLS, HAMMERS, PICKS, and all kinds of TOOLS for RAILWAYS, ENGINEERS, CONTRACTORS, and PLATELAYERS.  
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(BEAUMONT AND FOSTER'S PATENT.)

The "BEAUMONT" DRILL is now  
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For the last three years it has been solely  
used with complete success by the Aqueous  
Works and Diamond Rock Boring Company  
(Limited), and Messrs. Beaumont and Co.  
in their several large contracts.

During this time it has been improved  
and developed as to make it without doubt  
the best Percussive Rock Drill offered for  
Tunnelling, Mining, or Quarrying Work.

Price and prospectus on application to  
the Manufacturer,—

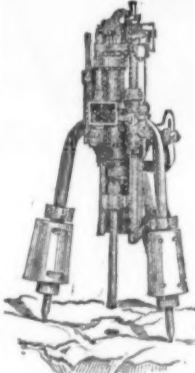
**JOSEPH FOSTER,**  
MINING ENGINEER

BOW LANE IRONWORKS,  
PRESTON, LANCASHIRE.

THE AQUEOUS WORKS AND DIAMOND ROCK-BORING COMPANY  
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Tripods, Tunnelling Carriages, Gadding Cars, Air  
Compressors, Air Pipes, and other Mining  
Machinery supplied.

Pumping Engines  
for  
Mines, Water Works,  
Sewage Works,  
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General Purposes.  
CATALOGUES ON

# PUMPING & MINING MACHINERY. HATHORN, DAVEY, & CO., LEEDS.

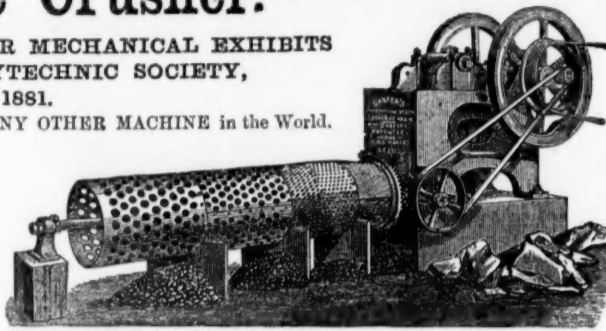
Hydraulic Pumps.  
Winding Engines.  
Air Compressors.  
Man Engines.  
Capstans,  
&c., &c.  
APPLICATION.

## The Only Knapping Motion Stone Breaker and Ore Crusher.

AWARDED THE ONLY SILVER MEDAL FOR MECHANICAL EXHIBITS  
AT THE ROYAL CORNWALL POLYTECHNIC SOCIETY,  
FALMOUTH, SEPT., 1881.

GUARANTEED to do MORE WORK with less power THAN ANY OTHER MACHINE in the World.  
READ THIS—

The Bold Venture Lime and Stone Co., Peak Forest,  
Messrs. W. H. Baxter and Co., June 8, 1881.  
GENTLEMEN,—We have the pleasure to inform you that the  
20 by 9 Stone Breaker supplied by you is now working to our  
entire satisfaction, and we are now able to fulfil our contract  
with ease, which we had much difficulty in doing before with the  
Blake Machine. It takes less power and turns out considerably  
more stone.  
Yours truly,  
BOLD VENTURE LIME AND STONE COMPANY.



GUARANTEED NO INFRINGEMENT OF ANY OTHER PATENT.

These Machines turn out the same amount of work with less than half the power, and make a better sample of Road Metal, with 50 per cent. less waste, than any other machinery, and for Crushing Purposes they are still more advantageous, as the sudden action entirely dispenses with the clogging when used for crushing softer materials, and thereby saves many breakages and a great waste of power. There is also a saving of fully 75 per cent. of lubrication required over the Blake Machine, and as a proof of this, our driving shaft never becomes heated. We are also prepared to guarantee our driving shaft from breakage in any of our Knapping Motion Stone Breakers.

We have already supplied our Machines to Derby, Harrogate, and Falmouth Local Authorities; besides several Quarry Owners, Contractors, Plaster Manufacturers, Mining Companies, &c.

FOR FULL PARTICULARS ADDRESS TO THE PATENTEES AND SOLE MAKERS,

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ESTABLISHED 1860.

## HUDSWELL, CLARKE, AND CO., LEEDS.

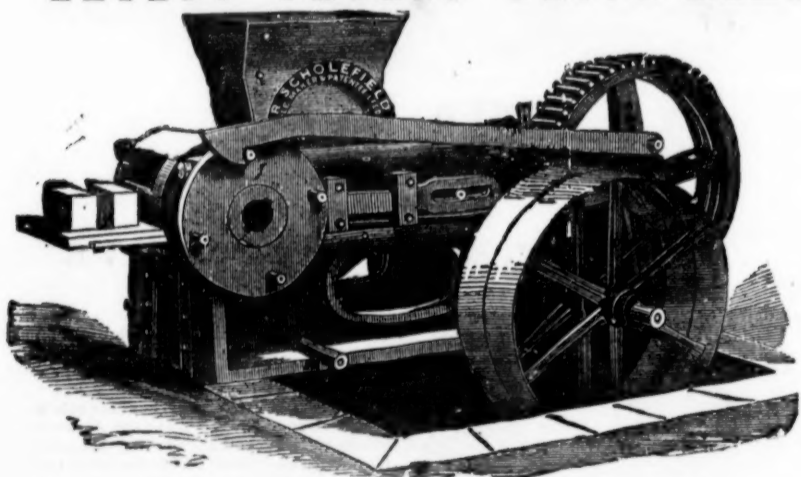


### LOCOMOTIVE TANK ENGINES

OF ALL SIZES AND ANY GAUGE OF RAILWAY.  
OF GREATLY IMPROVED CONSTRUCTION  
FOR MAIN OR BRANCH RAILWAYS.  
CONTRACTORS, IRONWORKS, COLLIERIES.  
For Cash or Deferred Payments.

SOLE MAKERS OF RODGERS' PATENT WROUGHT-IRON PULLEYS.

## R. SCHOLEFIELD'S LATEST PATENT BRICK-MAKING MACHINE.



R. S. begs to call the attention of  
all Colliery Owners in particular to  
his PATENT SEMI-DRY BRICK  
MACHINE, and the economical method  
of making bricks by his patent  
machinery from the refuse that is  
taken from the pits during the process  
of coal-getting, which, instead  
of storing at the pit's mouth (and  
making acres of valuable land useless)  
is at once made into bricks  
at a very small cost, by R. S.'s Patent  
Brick-making Machinery. If  
the material is got from the pit hill,  
the following is about the cost of

production, and the hands required to make 10,000 pressed bricks per day:—

2 men digging, each 4s. per day	8 0
1 man grinding, 4s. 6d. per day	4 6
1 boy taking off bricks from machine, and placing them in barrow ready for the kiln, 2s. per day	2 0
1 boy greasing, 1s. 6d. per day	1 6
1 engine-man, 5s. per day	5 0
1 man wheeling bricks from machine to kiln, 4s. per day	4 0

Total cost of making 10,000 pressed bricks ... .. £15 0, or 2s. 6d. per 1000.

(SETTING AND BURNING SAME PRICE AS HAND-MADE BRICKS.)

N.B.—Where the material can be used as it comes from the pit, the cost will be reduced in digging.  
As the above Machinery is particularly adapted for the using up of shale, bind, &c., it will be to the advantage of all Colliery Owners to adopt the use of the  
said Brick-making Machinery.

THE MACHINES CAN BE SEEN IN OPERATION AT THE WORKS OF THE SOLE MAKER AND PATENTEE DAILY.  
**SCHOLEFIELD'S ENGINEERING & PATENT BRICK MACHINE WORKS**  
KIRKSTAL ROAD, LEEDS.

SILVER MEDAL (HIGHEST AWARD) MELBOURNE, 1881.

JOHN SPENCER,

Tube Works, West Bromwich, and 3, Queen Street Place, LONDON, E.C.  
FIRST PRIZE, SYDNEY, 1880.

TUBES AND FITTINGS for Gas, Steam, and Water; Galvanised, Enamelled, and Hydraulic Tubes; Boiler  
Tubes and Fittings; Gas Fitters' Tools; Brass Cocks, &c.

ANTI-CORRODING TUBES AND FITTINGS COATED BY BARF'S RUSTLESS PROCESS.

**TUBES**

### FOREIGN MINING AND METALLURGY.

In the French iron trade transactions have been pretty numerous, and well sustained. The forgers of the Nord have a sufficient amount of work in hand to render them quite disinclined to reduce their rates at present, and if prices should advance in Belgium French firms will secure business at Paris which might, perhaps, otherwise pass to Charleroi. A contract for 500 tons of girders is stated to have been obtained by works in the neighbourhood of Châtelineau at 84, per ton. In the Longwy group the situation remains favourable; considerable sales of casting pig have been reported. Merchants' iron has been quoted at 84, 4s. per ton. In the German iron trade the tendency of affairs is towards improvement. Descriptions of iron which had been neglected have since become in good demand, and their tone exerts an influence on the rates current for pig which have revived slightly from the profound depression into which they had fallen. In the Sarre district several rolling-mills have advanced their rates for girders 5s. per ton. Sheets have also been hardening in price, while some descriptions of plates have advanced 10s. per ton. The works are generally well employed, especially the steelworks and mechanical construction establishments.

A sensible improvement is remarked in the general state of the Belgian iron trade. The feebleness and instability recently observable in quotations have given place to a feeling of confidence. The demand is reviving, and from pig to plates the downward tendency recently noticed in quotations appears to be completely checked. Some large transactions are reported in pig, the same can scarcely be said of iron, plates, &c. Upon the whole, however, transactions have been carried through more readily, and purchasers have shown less distrust as to the future. The requirements of consumers are for the rest considerable, and as most of the Belgian works had even a few weeks since enough work to employ them for some time to come their order-books may be now said to be well filled. Prices have not shown any material change at present, but we may sum matters up by observing that producers appear to be becoming masters of the situation to a greater extent than hitherto. English casting-pig has been a little firmer at Brussels, but prices have remained without any change worth noticing. The Athus Works maintain the price of casting-pig at 27, 10s. per ton. Iron has been maintained at 54, 4s. per ton, girders have made 54, 12s. per ton, and plates have been also well supported.

The tone of the Belgian coal trade remains favourable. Important deliveries continue to be made, and stocks in the different basins have been rather reduced than otherwise. In the Liège basin working operations on Mondays are being resumed by degrees, most of the collieries having now found it practicable to dispose of their full production. In the Couchant de Mons it is found very difficult to reconstitute stocks; the supplies on hand are estimated to be now about 100,000 tons less than those held at the corresponding date of 1881. This reduction at once explains the firm tone observable in prices. The intelligence available with respect to the German coal trade is slightly more favourable. The demand is reviving, the requirements of consumption having apparently become more considerable. The future also presents itself under more encouraging auspices, as German metallurgical industry is beginning to lay in considerable supplies of coal. Several important contracts are stated to have been concluded for June and July, and it is not regarded as at all impossible that prices may attain a higher level. The extraction of the collieries of the Sarre amounted to 431,062 tons, or 22,967 tons in excess of the corresponding extraction for May, 1881. Altogether this is expected to be a pretty good year for the German coal trade, and an advance is anticipated in prices in the winter. In Westphalia, coal quotations exhibit a firmer tendency.

### REMOVAL OF PHOSPHORUS FROM IRON.

To eliminate the phosphorus the sulphur and other metalloids contained in iron several recognised principles have to be considered—that of all the bodies which have an affinity for metalloids, nascent hydrogen has the greatest; that melted iron at a red heat decomposes water into hydrogen and oxygen, which latter combines with the iron; and that at red heat the iron has the power of occlusion as regards the hydrogen. Hence it follows that if steam be introduced along with the air by the twyers into a furnace the said steam will be decomposed by the iron, and the hydrogen produced as a result of this decomposition will combine with the metalloids contained in the iron forming phosphide of hydrogen, sulphide of hydrogen, and so on, which boil off in the exit. But in practice the absorption of heat units by the decomposition of the water has an influence upon the conditions or working of the furnace and compromises the reaction. It is in order to overcome this inconvenience that Count CH. DE MONTBLANC and Mr. L. GAULARD, of Paris, arrange their process so that while the steam is permitted to absorb vesicularly a certain portion of hydrocarbonate the heat units are restored in the moment of their absorption by the decomposition of the water. It is found in practice that steam of about 260° F. is suitable; also that heavy coal oil or the residue from the distillation of petroleum are applicable for the purpose of this invention; in fact, such hydrocarbonates as are volatile at a temperature of about 320° F.

The apparatus consists of a hermetically closed reservoir arranged in or with a double bottom or enclosing jacket, into which latter steam can be admitted by means of a cock, for the purpose of heating the hydrocarbonate contained in the reservoir or inner or upper portion of the apparatus; or gas or other easily regulated heat producing agent may be used for heating the hydrocarbonate. The upper part of the reservoir has deflector diaphragms or equivalent baffling appliances, and there is a steam pipe descending to the bottom of the reservoir, so that the steam issuing therefrom and ascending through the hydrocarbonate is baffled and thoroughly intermingled therewith, the steam in the false bottom or jacket imparting heat thereto at the same time. By suitable arrangement of pipes and cocks steam may besides be admitted directly into the efflux from the reservoir in case the steam should be overcharged with hydrocarbonate. A pressure gauge indicates the pressure in the reservoir.

CASSELL'S PUBLICATIONS.—Science for All, part 56, contains the conclusion of the article on rock-making rhizopods, and articles on the distant planets, Uranus and Neptune, by W. F. Denning; on what is under London, by Frederic Drew; on the hibernation of mammals, by Prof. J. Duns; on how waves of light are measured, by Prof. J. P. Cooke; and on a manure heap, by David Houston. Knight's Dictionary of Mechanics extends from sewing machines to sheet metal die. Canon Farrar's Life and Work of St. Paul extends to the date of Peter's dream, which is supposed to authorise the eating of trifa food. Little Folks, No. 91, contains numerous little tales with illustrations well calculated to suit children.

HOLLOWAY'S PILLS AND OINTMENT—GLAD TIDINGS.—Some constitutions have a tendency to rheumatism, and are, throughout the year, borne down by its protracted tortures. Let such sufferers bathe the affected parts with a warm brine, and afterwards rub in this soothing Ointment. They will find it the best means of lessening their agony, and, assisted by Holloway's Pills, the best way of overcoming their disease. More need not be said than to request a few days' trial of this safe and soothing treatment, by which the disease will ultimately be completely swept away. Pains that would make a giant shudder are assuaged without difficulty by Holloway's easy and inexpensive remedies, which comfort by moderating the throbbing vessels and calming the excited nerves.

## Original Correspondence.

## NEW PROCESS FOR MAKING IRON AND STEEL.

SIR,—I observe in your report from North and South Staffordshire dated June 22, under the heading "Steel from Staffordshire pig," an opinion expressed that there may be other cheap and economical ways besides the Thomas and Gilchrist of producing steel from inferior pig; and I find in the Colliery Guardian of June 23 the description of a process called "Bull's Process for the Manufacture of Iron and Steel direct from the ore," which I consider would produce both steel and iron of any quality required for specific purposes, and that from any class of ore. I have gone carefully over the description and do not at present know of any other method that would produce iron and steel as cheaply, and of the same uniformity of quality. I would strongly recommend everyone interested in the manufacture of iron and steel to go carefully over the description of the process before incurring any expense in altering or adding to their works. I may mention that I am in no way interested in Bull's patents or the company formed to work them. J. R. R. KEANE.

Liverpool, June 28.

[An article descriptive of Bull's process is inserted in another column of this day's Journal.]

## AURIFEROUS SULPHIDES.

SIR,—In his letter in last week's Journal, Mr. Butlin is not quite correct in his statements. At St. John del Rey some 73 not 95 per cent. of the gold assay value of the mineral is obtained. The sand or pulp does not afford 40 to 50 per cent. of pyrites. In the year ending Feb. 28, 1881, the quantity of pyrites amalgamated was only 6.7 per cent. of the weight of stuff stamped. In other words, 100 tons of pyritic ore did not yield quite 6½ tons of pyrites for the barrels.

As to Mear's process it is nothing more than the application of pressure to the chlorine as used in Plattner's process. Where room is of little consideration, as in mines, the simple Plattner's apparatus is, and will always be, preferable to the use of Mear's mechanical addition of a gas pump and chlorine tight vessels. Rich auriferous sulphides may mostly be satisfactorily treated by Plattner's process, provided the ore are first perfectly roasted. Deetken estimates the cost in California, including roasting, labour, materials, and chlorination at 44s. 8d. per ton, or equal to the value of, say, 12 dwts. of fine gold per ton of stuff.—London, June 27. M.

## GOLD AND DIAMOND MINING IN SOUTH AFRICA.

SIR,—The abominable traffic in stolen diamonds has been such an unmitigated curse to the diamond fields of South Africa that it cannot be wondered if in their anxiety to effect a cure they should introduce laws that may at first sight appear to be somewhat tyrannical to all those who are not thoroughly conversant with the facts of the case. In fact, the large companies and the mining boards have already been accused of trying to introduce slavery on these fields; but in order that your readers may not have any exaggerated ideas on the matter, I append the two principal clauses of the new ordinance which is being introduced for the purpose of suppressing the most abominable traffic that ever disgraced a community:—

5.—That native labourers be marched to and from the compound of each employer to and from each mine respectively under charge of overseers, whose duty it shall be to see that they do not break the line of march either way by going elsewhere than direct to and from such compound and such mine respectively.

6.—It shall be the duty of each employer to house his native servants, to supply them with food and drink, to surround each compound with a corrugated iron fence, to erect a gate or gates, and employ a gate keeper or keepers, whose duty it shall be to prevent any other than the servants of such employer entering such compound unless upon production of proper authority, and to make sufficient sanitary provision for the occupants of such compound, provided that it shall be permissible for two or more companies, firms, or individual employers of labour to combine and have one enclosed compound for their servants, and that every aforementioned employer of labour shall be subject to a fine on failure to comply with the terms of this rule.

Individually I am not in favour of the above clauses. At the same time, taking into consideration the fact that diamonds to the extent of 1,000,000 sterling are stolen annually, I think it is the duty of every honest man to accept the above as a temporary measure until something better can be introduced. I can easily conceive that the above system might be open to serious abuses, but I can also conceive that if the above system be properly carried out under strict Government supervision, and a chaplain appointed for each compound, it will not only be the means of checking the traffic in stolen diamonds, but it may be made such a blessing to the natives as eventually to influence for good every native home in South Africa.

I regret to say there is no improvement in the general prosperity of the places since I last wrote. Diamonds are still very low. In the share market there is literally nothing doing, and the depression consequent on the late mania is being severely felt. Mining at present is at its lowest ebb. Of course, the good companies can afford to hold their diamonds and bide their time, but most of the speculative concerns are bound to be re-organised or shut up altogether. It was not a mere chimera which in my last letter induced me to recommend the London and South African Exploration Company to exercise a little more leniency towards the numerous companies and claimholders in Dutoitspan and Bultfontein Mines; but it was a knowledge of the fact that these diamond mines are passing through the most trying ordeal that they have ever experienced—an ordeal which is incidental to all kinds of mining at all times and in all places. It is gratifying to know that amidst so much depression the Central Company have declared a dividend for the quarter of 8½ per cent.; this must be considered very gratifying indeed when we consider there has been a drop in the price of diamonds here of about 30 per cent. On May 27 they held their second annual meeting, which passed off in a most agreeable and satisfactory manner. Mr. Pam very wisely called attention to the necessity of altering clause 22 of the Trust Deed, which confines the voting power to the original holders of the ground, and demonstrated very clearly that it was a means of shutting out foreign capital. Mr. Brodie, after some very forcible remarks, wound up by saying "we can never get foreign capital into this place with the Mining Board as at present constituted." Your readers will remember that I have frequently subjected myself to very adverse criticism in consequence of continually keeping before the public the fact that the Mining Board is the chief incubus to the prosperity of Kimberley, and it is certainly very gratifying to me to find that all the large paying companies are coming over to my views in this as well as in several other matters which have been shadowed forth in the Journal. There is one matter which the local shareholders appeared to me to lose sight of—the important services rendered by their inestimable secretary, M. Kidger Tucker; his duties are very different to an ordinary secretary—in fact, he is to all intents and purposes secretary and managing director; he is the most important officer of the company, and is deserving of special recognition. The home shareholders would do well to confer with each other, and forward some substantial recognition of the valuable services of their secretary.

The French Company are hauling out a large quantity of reef. During the past week I have heard several local shareholders complaining that the concern is very extravagantly managed; it was pointed out that in some departments as much as 40 per cent. could be saved. The Barnato Company are finding very large quantities of diamonds; and, contrary to the expectations of most persons, they intend to pay a small dividend to-morrow, and another in a month. The British Company are earning the largest dividend of any mining company in Griqualand West, but I shall expect to see the Central take the lead next quarter. The Standard Company are doing fairly well, and are earning a good dividend for the current quarter. The five above-named companies are the only ones that can pay legitimate dividends for the next two quarters. I have on several occasions pointed out that the ground (claims) in the west end of the

Kimberley Mine is of no value, consequently if it should be piled off on British capitalists it would do this place a serious injury. I shall look out for an attempt being made to float some of these worthless claims in Glasgow.

The De Beers, Dutoitspan, and Bultfontein Mines are feeling the drop in the price of diamonds very acutely, and it is feared that several other companies will have to suspend operations. At Kamsfersdam they are finding some very good diamonds, and the mine is steadily improving. At Otto's Kopje they are finding some very good diamonds, but not sufficient to meet expenses—in fact, from the manner in which they are working they can scarcely expect to do so. In referring last week to the six companies in Dutoitspan which have suspended operations, I omitted to say that I could name two of them that I could make pay 25 per cent. per annum on their present capital without another penny outlay.

From the Transvaal gold fields the accounts are very discouraging. A Natal paper says:—"A digger at Pilgrim's Rest, writing on April 30 to a friend in Durban, strongly urges him to advise all against placing any faith in the reports circulated in reference to the Crocodile river. The words he uses are too strong to bear reference to our columns. In regard to Pilgrim's Rest he says—'We have had a very bad season; the worst I remember.' Another digger from Pilgrim's Rest writes—'Jorison, Holland, and Benjamin have been here, and frightened most of the diggers out of their claims. The two we sent to lay our case before the Government turned traitors, but have not yet received their promised reward. Holland, one of the partners, has gone to England to try and do John Bull; he is carrying the nice specimens with him, including the retorted gold that you saw three years ago.' The lump I saw was about 10 ozs. A third digger writes—'Gwynne Owen's Company have been offering the compensation, but none accepted it; Davis wanted 15,000l.; in all these cases Government will be called in. At Mac Mac some people have made arrangements with Shires and Muller, but as this farm is nearly worked out, at least all the payable parts, there is not much doing there. King and Dawkins, of Spitzkop, are doing well; 100 ozs. in a week, and 34 ozs. in two days' wash up. I believe that Spitzkop and its vicinity will be the diggings of the future, as the work already done there is trifling compared to other places, and the country has still to be prospected. A concession was granted for these two farms on a payment of 500l. yearly. McHattie and White have gone to England to raise a company to work part of these fields. Niekerk's farm adjoining has a good many diggers on it, and it is not yet known who the lucky proprietor is, as it was given by Niekerk for sale in Europe to Mr. J. Franck; when Franck arrives the diggers will be made acquainted with it. People should not be in a hurry to rush up into these parts unless they can afford to lose their time and a few pounds for travelling expenses.'"

The Government have stated openly that in consequence of the political action of Mr. C. K. White during the late war they will deprive him and his party of their rights at Waterfall. I am in a position to state that all the gold that is being found at Pilgrim's Rest and Rotunda Creek is costing fully 14l. per ounce. The glowing and false accounts in the papers with regard to the gold fields of the Transvaal brought up from Delagoa Bay (through those horrid swamps) a large number of people, who are dying like rotten sheep. People often succumb to this deadly fever long after they have passed through the fever beds. The tsetse fly is playing sad havoc with the cattle this year; out of 32 teams not one arrived on the fields from Delagoa Bay; there are generally 16 in a team.

The disgraceful schemes of salting and manufacturing veins are still being carried out, and one or two cases are about to be exposed. The commando that was sent to murder Mampoor's Kaffirs returned much sooner than was expected; they found Mampoor in a strong position, and contented themselves by stealing 500 of his cattle. What a peaceful, God-fearing people the Boers are! Scarcely a week has passed since the country was given back that they have not massacred blacks, and during the 16 years previous to the British occupation they had out 22 commandos against the poor Kaffirs, and left the British as a legacy the only native war (the Secocoeni war) they were ever engaged in during their four years' government of the country. The adventurers of the Transvaal may send all the Blowhards in the country to try and "raise the wind" out of England, but people of capital and business capacities should avoid the Transvaal in its present state as they would avoid a pestilence, because, as I remarked in a previous letter, neither the life nor property of an Englishman is worth 24 hours' lease there at present. I have just been informed that the Spitz Kop property, which McHattie and White are offering in England for sale, belonged to Mr. Joe Shires, who first sold it to Cohen, Gates, and party, who paid him 2000l. on account, but that after getting a better offer from McHattie and party he tried to withdraw from Cohen and Gates, and sell it to McHattie and party. Cohen has placed an interdiction on the property, and consequently there is to be some litigation in the matter.

Kimberley, June 1.

CORRESPONDENT

## MINING ENTERPRISE ON THE GOLD COAST.

SIR,—The lengthy summary in last week's Journal in connection with gold mining on the Gold Coast has struck me so far, that I feel tempted to contribute my testimony to the relative bearings of the subject, and, which, I hope may prove not uninteresting to your readers. The subject I shall treat under the following headings:—Existence of Gold, Geological and Physical Descriptions of the Gold-bearing Rocks, Mode of Working, Native Labour, and Climate.

EXISTENCE OF GOLD.—This may, I think, be very summarily dismissed, but if any are sceptical, we have but to go to some of the large trading firms upon this part of the coast and enquire of them as to the amount of gold dust annually taken in barter. Even this forms an infinitesimal part of what the natives actually obtain, for the native never parts with his gold dust to the white man if he can by any means obtain palm oil to barter for what he needs. Much of the gold dust goes into Ashantee and the interior, or is hoarded up, a part of which, in the shape of jewellery, is only seen on exceptional occasions, as a marriage for instance. Again, each individual burying his wealth in the forest, only on his death-bed to tell where hidden, a large amount of gold must be annually lost. In any civilised country this would be an impossible undertaking to do with any safety, but such is the fear of the "fetich" that to watch any one hide his wealth, or to touch it, would to the native mind be equivalent to pronouncing his own death sentence. Capt. Burton and Cameron, well-known African travellers, confirm the exceeding richness of this country; as also does the very name of this coast—Gold or Guinea Coast. Figuratively speaking, one may well say gold can be picked up like peas.

GEOLOGICAL AND PHYSICAL DESCRIPTION.—The gold is found chiefly in three different formations.—1. In the drift, which covers the country, and consists of ferruginous gravel and clay beds, varying from a few feet to 120 ft. in thickness. These beds are of very recent date.—2. In a series of sandstones and conglomerates often so metamorphosed as to pass into gneiss, but which on weathering distinctly show their origin by the pebbles standing out. These beds, in which I have never yet found anything like a perfect fossil, and in which a talcose mineral seems to have replaced the carbonate of lime, rest unconformably on those below them, and are probably also of recent origin. This is borne out by a fossil having since been found by a French mining engineer of the Ostréa Genera.—3. And lastly, the gold is found in quartz reefs traversing the older rocks of clay and talcose slates and schists upon which the second series of rocks are laid, and in almost every case I have examined are auriferous, while the more recent quartz reefs traversing the second series of rocks, and sometimes even the gravel beds are non-auriferous. The prevailing strike of these older rocks, which may be of Cambrian and Laurentian age, is roughly speaking north and south, dipping to the west at about 35° to 70°. These again rest on the diorites and greenstones, which pass upwards through every gradation into aenites up to granites. Cape Coast Castle itself is built on a beautiful variety of granitic granite. The configuration of the country consists of low ranges of hills running parallel with the general strike of the rocks, and broken by small valleys crossing them at right angles, and of a slightly higher altitude than the main north and south valleys. The whole is so thickly covered with forest and bush, that even to obtain a slight idea of the configuration of the ground needs constant

and laborious observations. The main valleys have unfortunately but very slight fall, and for extensive hydraulic washings, as in Australia, there will be considerable difficulty in carrying off the tailings.

MODE OF WORKING.—In the gravel beds the natives sink small circular shafts 2½ to 3 ft. in diameter, every wet season these fall in as the water permeates, but above water level stand well. They vary in depth from a few feet to 75 ft., and are very seldom deeper. In the harder metamorphic rocks of sandstones and conglomerates they sink both square and circular shafts; this they do by a process of "fire setting" which is slow and laborious. The process is still said to be practised in some parts of the Hartz mountains. When occasion requires they timber by sets and poles, though crude they have excellent ideas. Now, however, they are beginning to learn how to use gunpowder. Tunnelling is seldom practised, though I have seen in a few cases galleries driven from one shaft to another, and the ground stopped out between them both above and below. Of their mode of mining quartz reefs which, unless exceptionally rich, are left untouched, but when worked the whole of the reef is carried away in one huge trench as far as water will allow. The reason of this being that the quartz is a hard and cutting substance to grind down to a fine powder, not on account of its hardness to mine, for some of the conglomerates are harder and tougher, but these last, on the other hand, are when once broken up into bits, easily ground down, resolving themselves into their once constituent parts. The men having mined the rock, it is then given to the women and children, and is ground down to a fine powder on a large dioritic or aenitic stone by being rubbed with a smaller and similar stone held in the hands of the worker. The ground stuff is then washed by the women, who are very expert at this, through a series of bowls, the whole re-washed several times, the concentrates reground, and again washed over, the gold dust thus obtained being finally dried on a piece of shell, is given back to the men who winnow it from dirt, then weighing it in their little scales, afterwards put it carefully away in a small piece of cloth or quill. As they have no kind of pump, their only method being to bale out the water by a calabash, as soon as water level is reached they have, therefore, to abandon their shafts which fall in and recommence new ones.

LABOUR.—This brings us to the labour question, a very important one, but the one which I have carefully gone into during the last two years and a half. On Fantee labour it is useless to depend, those who will work at all find it pays them better to mine, and as soon as they have made a little capital by work they lay by a store of gin and food, and then commence to sink a shaft on their own account. But it is on the Kroos we must chiefly depend, and with all due difference to our two great travellers—Capt. Burton and Cameron—who have given us two very interesting lectures on the subject of gold mining, I am convinced we have abundance of labour for a long time to come. What is needed at present being to open the labour market from more than two or three points, of which more by-and-by. First, let us look at their capabilities for mining. I most fully endorse Mr. Cornish's statement that they soon learn how to swing a hammer and use a pick, and in blasting need but one of our good old Cornish mimes to place their holes for them. Over one hundred men have thus passed through my hands from time to time, and in six weeks could swing a hammer as well as any man. Those very men I have, as a positive fact, more than once (when first they came to me) seen pick up a wheelbarrow and put it on their heads to carry. To encourage old hands to come back again, after their return to their homes at the end of their year's contract, I have always given them the same wages as that at which they left on their resuming work, and hence, perhaps, it may be said wages have gone up, true so far, but then we have double our value in such men. Another reason for the fear of the dearth of labour, no doubt arises from the mining companies and traders having hitherto drawn their labour from two to three points only—Grand Bassa and Cape Palmas; but for several hundred miles the Kroos stretch along this thickly populated coast. The steamers only stop off these particular stations, and it is a well known fact that any other Kroo tribe coming to work down the coast have to pay toll at these places, and again on their return have to pay over 50 per cent. of their earnings in order to reach home. What is wanted is a small coasting steamer, which will lay off for several days along the different seacoast villages, enter into negotiations with the chiefs, and guarantee that on their return the people shall be landed opposite their respective villages. With kindness and great firmness these people soon become attached to their white masters, and after their return home carry back their praises, so that any one with a good name can get as much labour as he may need from his former worker's tribe. There are no more docile and teachable people than the Kroos, though some of their tribes are cannibals; and of which last I had a batch of 25 working for me one year, and splendid fellows they were too. Not only the Kroo coast have we to draw from, but also the Half-jack and Druin coast whose people are said by the Bristol trading captains to be even superior to the Kroo. In addition there are the Ashantees whom I have employed largely, and found them to be both willing and able workers, superior by far to Fantees, though not such fine men in bodily physique. The labour question is, then I consider (should there ever become a tightness in the market), one which can most easily be overcome by the methods suggested.

CLIMATE.—That the climate is undoubtedly bad no one would wish to deny. But that it is as bad as generally made out is altogether another matter. If so bad how, in the Ashantee war from bullets and other causes, was it that our death-rate only reached 23 per 1000 according to Earl Carnarvon—equal to the death-rate of a large healthy town? Again, that the Government officials stationed out there suffer dreadfully is no wonder. I do not accuse the home Government, but the coast Government who know all the smaller details. Officers who have been accustomed to luxuries are sent down the coast to some solitary place, not a white man perhaps in it, no furniture, an old barrack table, a form, and may be a bamboo bed, no European food, and no medicine; this poor unfortunate has to supply his needs as best he can. Fever comes, he has no doctor, shut up in a festering town, and what is the consequence, finds himself so ill that he is carried into a canoe and taken to Cape Coast Castle in a blazing sun, and if this poor individual should have been at all addicted to the bottle the sun and fever put a certain end to him. In the different mining camps now out there, I think I may say health has been better than at the Indian mines, not once has any company had to stop work from sickness. With the exception of the French Company, health has been very good, and but for the sanitary arrangements of the company they might have been better, and in the future, under the able management of Mr. Bowden, I have but little doubt will prosper in this respect. Speaking for myself I have lived much in only a tent to shelter me from drenching rains, far away in the forest from any white men, and travelled many a night in the thick miasma of a river. Now, were the climate so deadly as commonly reported, this would be impossible. Sierra Leone, a short time ago so unhealthy, but since a sanitary inspector has been appointed, and who rigidly carries out his work, has most wonderfully improved in its general health. With proper food, medical attention, and good dwelling, what has been done in the past two years, can, and with even better success, from the experience of these two years, be done again. Finally, my advice to those going out there is to attend particularly to their drinking water, the sanitary arrangements of the camp, drink moderately, and whenever wet change, and have a good rub down. This I learnt from old coasters, and followed out with good success to myself, and under circumstances that no working man going out there is likely to pass through.

In conclusion, it may be asked why have not the companies sent home gold yet? To this I reply that under the most favourable circumstances the time has been too short; we have had to make new roads, clear the bush and forest, to learn the customs of the natives, to teach them to drive long tunnels, and sink shafts in order to drain the mines, &c., to transport machinery by native labour only, and yet from trial working I believe, but cannot touch for the fact, have sent home more gold from one or two mines than has yet been sent from India, though the latter perhaps they have had to contend against ancient and extensive workings which has not been our case. Where the mischief has been done was to have led people to expect immediate returns, which in a few cases perhaps could have been

done by a system of "gouging," but to the ruination of the mine works, which have to be opened and laid out with as much skill and care, as perhaps our railroads have to be. To illustrate the above to outsiders, a railroad may be commenced from many different points simultaneously, but in a mine it is different; what we have first to do is make these points in which to place our men, and hence it is that we need so much time to accomplish this before we really can commence to work for ore. In reference to the article above referred to, having been personally all over Akankoo, and with the careful direction it is now under, judging from the way they are acting, and with hardly any transport difficulties to be overcome, it bids fair to become a great success which I wish it to be together with the pioneer companies of Messrs. Swanzy, the French companies, and the Effenta.

Whilst having taken up my pen hoping to interest your readers, my endeavour has been to give as fair description, compatible with brevity, which so extensive a subject demands.

E. MCCARTHY, M.E., M.R.S.M.

#### POTOSI GOLD MINES.

SIR,—I have been informed that in the April report of the above mines I am credited with having prepared an inaccurate plan of the underground workings on the Chile lode. During the short period of my management I made no surveys of any description, but used the plans which were handed to me by the acting manager.

Sto. Cloud, d'Algerie, June 20.

BRENTON SYMONS, F.C.S.

#### FRONTINO AND BOLIVIA MINING COMPANY.

SIR,—From the length and character of the proceedings at the meeting, on Wednesday, there appeared to be a disposition to tire out the shareholders attending till men of business were compelled to leave, while the Chairman's supporters would remain to load him with compliments for his judicious management. The proposal that Mr. White should take up the time of the meeting by reading a report of 15 printed pages was rightly negatived, and one can only conclude that shareholders who attended the meeting and voted in favour of the time of the meeting being so occupied had little care for real business. But what has resulted to the shareholders from the "judicious management" of the Chairman and the "prescience" of the manager? Mr. T. Baxter is a brother of the director of that name, and has been a shareholder from the commencement of the company. Let his figures give the answer. During 3½ years gold has been sold to the amount (in round figures) of 180,000*l.*, and out of that immense total all that the shareholders have received is about 2000*l.*, the rest of the money divided amongst the shareholders during that period amounting to 17,000*l.* odd, is the profit on exchange, and Mr. Foakes had the courage to say (knowing he had a shareholder near him ready to back him up in anything) that this profit on exchange must be regarded as profit from mining. Who but so bold a Chairman would advance such a proposition? If the rate of exchange were reversed, and money could only be remitted at a loss, would it be right to charge Mr. White with working the mines at a loss? Certainly not.

The prospects of dividend for the shareholders is the same as for years past, or perhaps worse, for the Chairman boldly tells them that the accounts are wrong. They show a sum of nearly 9000*l.* "cash" at the mine, and 6432*l.* odd at the agents, but the Chairman stated at the meeting that these sums do not exist as cash. Again, 5710*l.* 2*d.* 6*d.* is said to be the amount at the reserve fund, which fund Mr. Foakes told the shareholders years ago should be invested in some good Government security, but the accounts do not disclose a single farthing of such a security. And the report says that 9646*l.* 17*s.* 10*d.* is the profit for the six months, and 141*l.* 4*s.* figures as "Income tax on profits," but the shareholders are not to have one penny of the profits.

True it is the Chairman tells them that they had shares issued to them at par in February or March, when the company's shares were at 1*l.* prem., and so they might by selling gain something; but this is a novel and not very convenient mode of paying a dividend, and it is to be feared that the shareholders will not thank their Chairman for suggesting that they should rush into the market to sell their shares. In the face of all this the directors ask the shareholders to accept a 1*s.* per share dividend for the three months' following the period embraced by the accounts—that is, to take a dividend for a period not yet considered by them, and to say nothing about the six months' accounts. The strongest part about all this business is that some large shareholders approve of it, and when a proposal is made to pay them a dividend of 3*s.* per share out of the profits which the directors say have been earned, they prefer not to take it and to thank the directors all the same. What can be the meaning of this it is difficult to say. It has a strange appearance: but the affairs of the Frontino and Bolivia Company are an enigma. When is it to be solved, and how?

City, June 30.

#### FRONTINO AND BOLIVIA MINING COMPANY.

SIR,—Following up the letter which you inserted last week on the subject of the Frontino Mine, I would add a few remarks for the information of your readers. Although the support given to us was not sufficient to carry out the proposition we indicated it is some satisfaction to us to know that a considerable number of the shareholders are waking up to see how nicely the butter is being scraped off their bread. If individual shareholders will apply to the Chairman he will explain to them why the cash shown in the accounts to Dec. 31, 1881, could not be distributed as dividend accrued from the half year's profits. Your report of this meeting will probably be given in *extenso*. I will not, therefore, trouble you at present with a longer letter.

Haslemere Lodge, Bockenham, June 30.

W. P. SUTHERLAND

#### GOLD IN COPPER ORES.

SIR,—In the Journal of March 11 one of your correspondents refers to the discovery of gold in Pary's Copper Mine. My impression is that very many of the English copper mines will be found to also contain it, if properly looked for, as we continually find it in conjunction with copper in these colonies, occasionally free, but mostly pyritous. The Goodrich Copper Mine was (and is) a deposit, rather than a lode, some 50 ft. wide, averaging about 4 per cent. copper with rich bunches of peacock-green and blue carbonates, and yellow ore here and there. All these latter were picked out for the furnaces, and the main body of poor stuff crushed in a 20-stamp battery and the tailings concentrated; this gave us about 14 tons weekly of 12 per cent. ore to mix with the picked ores for smelting, whilst the yield of free gold from the crushing was about 3 dwts. per ton (paying all the expenses).

When the refined copper itself was assayed, it usually gave from 2 to 3 ozs. of gold per ton (which doubtless came out of the pyrites), but we could never get any extra allowance for it on selling our copper in London. Here and there we got rich specimens, in the gossan more especially, giving 13 ozs. gold per ton, and pyrites also equally as rich, but as a rule no gold was seen in the main body of the ore deposits, and yet it must have really run through nearly, if not the whole of it, judging from the crushing and the assays of the refined copper. The Carangara, Icely, Somers, and other copper mines also are known to have gold in the ores, and also some of the Queensland mines, so that with us it is by no means exceptional, and may, therefore, possibly prove to be the same with many of the English mines on close examination. Some of our antimony lodes likewise show from 5 to 6 ozs. gold per ton in the casing.

Several galena lodes in Queensland, which do not show any free gold, yet yield over an ounce per ton by ordinary crushing, whilst by assay they give 50 per cent. lead, 300 ozs. silver, 8 ozs. gold, these respective quantities varying more or less, but still showing well for silver and gold.

Gold has also just been found at Kilkivan, near Gympie, Queensland, in a large broken porphyry dyke, giving about 2½ ozs. per ton, through the battery. It has not been assayed yet, and may, therefore, probably prove much richer than that.

In the Reform Leasehold Mine, on the Wentworth Freehold

Estate, New Orange, N.S.W., one of the most remarkable discoveries there is the existence of gold on the Serpentine rock itself, varying from 900 up to 900 ozs. per ton; but it is so fine that it cannot be saved by any of our machinery here, and the lode itself is, therefore, sold in England, and the returns added to the profit from the free gold in the ordinary quartz veins swells up the Dividend-List pretty handsomely each quarter.

Over 6 tons of free gold were taken out of about a dozen shallow shafts on this property some 20 years ago, and then the mines were abandoned as worked out, although, had the mines only clubbed together and put up a 10-horse power steam pump, it would have kept all the claims free easily, and they would all have reaped the rich reward that the one solitary "reform" is now doing; but in these days no gold was thought to exist below the water level, nor unless it could be seen in the stone itself; whereas, on later experience proves richer yields at deeper levels, and that many reefs crush well where not one speck of free gold shows to the eye, therefore, not only might it prove advantageous for English miners to assay copper and lead carefully for gold; but also any quartz veins, especially those occurring between slate and granite or porphyry, and most especially wherever diorite is found, as that, with us, is almost an invisible proof of good gold close by it.

Sydney, N. S. W., May.

R. D. A.

#### MINING DISASTERS, AND CORONERS' JURIES.

SIR,—We are instructed by Messrs. John Haigh, the owner of the Victoria Colliery, and Matthew Laing, manager of such colliery, to call your attention to the leading article contained in the Journal of May 13 last, entitled, "Mining Disasters and Coroners' Juries," and to refer you to the inaccuracies of the statements contained in that article. You state that "Morley is a small place, the staple trade being coal, with a good many small shopkeepers and publicans depending upon it." Morley contains a population of 15,013, according to the last census, has a rateable value of 55,918*l.*; the staple trade is not coal, but the manufacture of cloth, 8-10ths of the people being engaged in the manufacture of cloth. There are only five collieries in the township, two of them being situate at the extreme boundary of the place, and there are not many small shopkeepers and publicans depending upon the colliery trade, a very large proportion of the miners not being resident in Morley. We enclose a copy of the Morley Observer of May 6 last, containing an account of the proceedings at the inquest for your perusal and information, and wish to point out that no complaint as to gas or ventilation were made in the proper quarter or recorded in the colliery books, all of which were submitted to the Coroner, the jury, and to Mr. Wardell, the Government Inspector of Mines.

We also wish to draw your attention to the fact that no blame was attempted to be thrown on either Mr. Haigh or Mr. Laing by the official or quasi official persons present at the enquiry, although Mr. Wardell was present throughout the enquiry, along with the President and secretary of the Miners' Association of South and West Yorkshire, the President giving evidence after he had made two careful inspections of the colliery, which was thrown open for the inspection of any person interested. Mr. Wardell made a most searching examination of the colliery prior to the inquest.

We would also state that no accident has ever before occurred in the colliery, although it has been worked by Mr. Haigh and his predecessors ever since its commencement, upwards of 30 years ago, shots having been fired in the pit during the whole period in exactly the same manner in which the one was fired which it is alleged caused the accident. The colliery has been looked upon and is now reputed to be one of the safest in the district.

With respect to the air going through the workings, we are instructed to state that the average quantity passing through the Middleton seam for six months previous to the accident was 59,100 cubic feet per minute.

As to Stringer's Boards, which are situate in that seam, we are instructed that there was an average of 1596 cubic feet per man per minute for the six months, being, we are told, very considerably over the average quantity of air in mines generally, and there was that quantity on the day of the accident.

Our Mr. Steward asked the Coroner, the jury, and also Mr. Wardell whether they required any further evidence submitted to them before the inquest was closed, and they all stated that they did not.

With respect to your statements as to the jury, we are instructed to state that the gentlemen who formed the jury in question were comprised of some of the most respectable and some of the largest ratepayers in the district. The Chairman (Mr. Samuel Hirst) is a corn merchant, Chairman of the School Board, Poor Law Guardian, and was a member of the Local Board. Five of the jury were large manufacturers, eight were leading tradesmen, and one a person retired from trade, there not being a single publican or beerhouse keeper on the jury; nor was there any person who was dependent upon either a miner, a manager, a deputy, or official of the colliery.

Frank Moss, one of the persons killed, and the deputy having charge of the mine in Stringer's Boards, made a report in writing on the same day that the accident happened, that he had found Stringer's Boards all safe and free from danger.

In conclusion, we are instructed to state that Mr. Haigh's attention has only quite recently been called to the article in question, and we now ask you for a statement in your next Journal that no imputation was intended against either Mr. Haigh or Mr. Laing that the colliery was worked in an improper and dangerous manner, or that the accident was the direct result of the way in which the colliery was worked, and also for a correction of the mistakes made in the report of the evidence.

SMITH AND STEWARD,  
Solicitors for Messrs. Haigh and Laing.

Birstal, Leeds, June 29.

[Reference to the article to which the observations of Messrs. Smith and Steward relate can leave no doubt that the remarks throughout were of a general character, the explosion at the Victoria Colliery being only incidentally mentioned. The names of Messrs. Haigh and Laing do not even occur in it, and as it is distinctly shown that neither the owner nor the manager were informed of any defect in the ventilation, it is obvious that no imputation could have been made upon them that the colliery was improperly and dangerously worked.]

#### CHEAPER COAL, AND CHEAPER LOCOMOTION FOR LONDON.

SIR,—Such constitute the dual most important requirements of the preponderating mass of urban as well as suburban inhabitants, fuel bearing similitude to our daily bread, locomotion ranking as an important element of rent, weighing so heavily upon the integral population, especially the working and less favoured classes, through the vast demolitions taking place, not merely in the centre but widespread over the metropolitan area, rendering resort or rather refuge to houses at a great distance from their work, fixed or ephemeral, compulsory. Having contributed to the Journal on this important subject it may be expected I should show the practicability of carrying out what must be regarded with deep interest by the general public, and especially so by the Corporation and Metropolitan Board of Works. All owners of vehicles will be too glad to witness the removal of the permanent way of the tramway companies, it being stated last week in a leading daily paper that the Four-in-hand Club in traversing the metropolis and suburbs studiously went considerably out of their route to avoid the tram-rails. Precited authorities, fully alive to the almost impassable state of the streets through innumerable empty cabs plying for fares, bearing striking analogy with dumb barges drifting with the tide, rendering navigation incomparably more dangerous than large ocean steamers, will permit me to assert that proposed system will tend more than any other means to clear the streets.

SEABORNE COAL AND ENDLESS TRAMWAY COMPANY (LIMITED).  
Capital, 1,000,000*l.*, in shares of 1*l.* each. With power to increase 2*s.* 6*d.* per share payable on application, 2*s.* 6*d.* per share payable on allotment, with two months' previous notice for further calls not exceeding 2*s.* 6*d.* each.

#### COMPUTED COMBINED RESULTS.

Coal at a saving of upwards of 6*s.* a ton on Tyne also Great Northern Railway conveyance, delivery, and breakage.

Locomotion at 4*d.* tramway fares will give upwards of 10 per cent. dividend on invested capital.

#### PROSPECTUS.

The primary object of this undertaking is the purchase, transport, vend, and delivery of Yorkshire coal to metropolitan consumers, at a saving of upwards of 6*s.* a ton on Tyne also Great Northern Railway conveyance, delivery, and the amount of loss through breakage, certified by two leading metropolitan coal merchants. The annual import into London, by the latest official return, upwards of 10,250,000 tons coal, constitutes the largest transport in the world, and the aggregate metropolitan omnibus, tramway, cab, railway, and steamboat conveyance equally so, in both instances increasingly commensurate with that of population. Collateral with the coal traffic, the proposed endless tramway system, destined to supplant existing tramways burdened with a heavy dead weight for permanent way, maintenance, parliamentary, and preliminary expenses, of which proposed system, engendering superior traction, and street circulation is devoid, consists in the appliance of wheels forming an endless railway, dispensing with laying down rails involving an immense danger and obstruction in suburban street traffic, the permanent way or rails not being allowed in the leading streets and on the bridges. A recent Report of the Select Committee of the House of Commons on Artisans' and Labourers' Dwellings attaches due importance to cheap locomotion for the working classes, which does not exist with the exception of a limited number of workmen's early trains, leaving totally ignored the immense female labour, clerks, shopmen, apprentices, and industrials generally, to whose business hours workmen's trains starting at 4, 5, and 6, are inapplicable. The substitution of third for higher class trains on the Midland Railway, &c., it is well known has paid the companies much better, and the early workmen's trains at 1*d.*, to and from the City, 1*d.* return, are much more remunerative than other trains in the aggregate. As the low prime cost of fuel delivered in London will give the company a monopoly of the coal supply, a very large stud of horses must be maintained for the lead from pit mouth to steamer, and from the Thames wharves or draw docks to consumers premises, a mixed traffic is of paramount importance. Passengers will be conveyed at half-penny fares in lieu of quadruple that amount levied by existing tramway companies, and where rails are not allowed to be laid down, 1*d.*, for instance, from Charing Cross to Bank, Oxford-street, &c., and across the bridges.

Bearing upon the coal trade, the eminent coalowner, Sir Joseph Pease, M.P. for South Durham, and Chairman of the North-Eastern Railway Company, when relating, on 21st current, to a committee on the East and West Yorkshire Union Railway, the inauguration of coal transit by steam traction on railways, remarked that in Newcastle a saying exists that "there are tricks in all trades, but the coal trade is tricks altogether." I have given such exhaustive information on what exists in London that I deem it apposite to state that with the large capital embarked in this undertaking such would be suicidal on their part. The managing director, Mr. W. J. Thompson, to give proof of his well grounded confidence in the successful working of the undertaking will draw his percentage on net profits after distribution of 10 per cent. to shareholders. To enter into further details would be inadmissible as encroaching upon space allotted to other matter.

Little Tower-street, June 26.

W. J. THOMPSON.

#### MICHIPICOTEN NATIVE COPPER COMPANY.

SIR,—In a Canadian paper of June 11 I read under the heading "Mining Stocks"—"This week the better tone of the market noted last week has continued, and prices average higher, with an increased demand for nearly all stocks on the list. All the copper now coming down from Lake Superior has been previously sold for delivery, so that there will be no accumulation on the market. The mines were never doing better, and a steady ingot copper market is almost assured, and the outlook for Lake Superior has rarely been more flattering than at the present time." How is it, then, that the Michipicoten Company commands so small an amount of attention from English capitalists. The more prompt and more frequent publication of news received from the mines might, perhaps, benefit the shareholders. It would, at any rate, bring, through your medium, the property under the notice of non-shareholders, and might keep the concern forward.—*Tooting, June 26.*

M.

#### CORNISH MINING—COMPARATIVE MERITS.

SIR,—I may perhaps not be considered intrusive if I solicit space for a few remarks on the comparative merits of some few leading mines of the county, especially as there just now seems a desire for enquiry into the real state of mines, as regards their present productiveness and probabilities of a continued yield. This enquiry most assuredly should be made by persons who have money to invest, and would feel willing to embark in mining if reliance could be placed upon statements which are put forward, instead of having those which lead to wild fluctuations in the mining share market, and present false inducements to confiding capitalists regulated regardless of improvements or falling off in mineral returns, or the conditions upon which returns may be expected from new undertakings. When we take, for example, the high price at which Cook's Kitchen Mine is selling for—100,000*l.*—non-dividend paying (although probably not yet reached its intrinsic value), and view it in comparison with Wheal Grenville, selling for 60,000*l.*; Wheal Peavor, selling for 30,000*l.*; South Frances, selling for 54,000*l.*; and Killfret, selling for 36,000*l.*, all dividend-paying mines, with every prospect of a great increase in returns, surely we may look on it as one of the enigmas in mining valuation, of which the mysteries of share jobbers can only give a solution. Again, take some of the progressive mines of the county, those of which are about meeting cost, and will in all probability enter the Dividend-list ere the year expires, and neglected by the investing public, are now selling for one-half the price of some not having the least chance of such a position for years to come. Experience emboldens me to assert that there is not one-half the mystery connected with mining as would appear to deter private capitalists from its study. It is astonishing how little the matter is studied. "Bulls" and "bears" raise or depreciate mining property with impunity.

St. Day, Scorrer, June 29.

CHAS. BAWDEN.

#### MINING AND INDUSTRIAL ENTERPRISE.

SIR,—With reference to the letter of "G. E. H." in last week's Journal, I would remark that electricity is now only in its cradle. Owing to the enormous number of new companies which have come into the field their very rivalry will lead to new and important improvements. The inventive genius of the scientific world is now being tested in every way, and some further great improvement in the means of electric lighting may at any moment be announced, such as to revolutionise the present system. It was only recently that a Committee in the House of Commons published in a Blue-Book that the subdivision of the electric current was not to be hoped for. Not long afterwards Edison and other scientific men succeeded in dividing it. This delicate and mysterious power as its methods develop by use will work everywhere, telephone, phonograph, turn our engines, drive tramcars, but before that time arrives there may be failures, losses, and disappointments, clashing of new and old claims, though in the end the fairy-like gift of modern science may universally prevail, but at the present time speculations in these, as in all other enterprises, should be carried on with caution.

If we turn our attention to mining, both at home and abroad we will find the present a very opportune time for investment. I will start with Cardiganshire, and ask are not the inhabitants of London blessed with a bountiful supply of pure water owing to the enormous profits derived from the silver-lead mines in this district, which is as rich as ever, only waiting for the miner's pick. The Bwlch United and West Lisburne both hold out prospects of success. The former is now yielding regular monthly returns of silver-lead, and everything points to early dividends, as lead must shortly have a most important rise.

In Cornwall there are rare opportunities for speculation. Look at West Vor and Leeds, containing, as it does, the richest partially developed portion of the Great Wheal Vor sett, and all the same lodes which have yielded millions. The discoveries already made are only the forerunners of great and lasting deposits in depth.

Your correspondent, in referring to the Sentein Mine of the Pyrenees, stated that it was once again about to make large returns of silver-lead ores. The fact is that the mine is at the present time returning more than 100 tons of silver-lead, and from 200 to 300 tons of blende monthly, which return will soon be considerably increased. The monthly profits are significant. The present managers have succeeded in pulling the company through its recent difficulties, and this mine is about to assert the position it held some 12 years ago—that of being one of the most noted in Europe. In Venezuela some great discoveries of gold have been made. The celebrated Callao is now one of the richest in the world for the production of gold, and yielding incalculable profits. The New Callao also holds out hopes of an early success. The quartz is plentiful, and contains a high percentage of gold, and is identical in its component parts to that of the Callao. In conclusion, I would advise investors to use common sense and caution before they embark in any undertaking whatever, and guard themselves against speculative mania, which sometimes becomes infectious. S. H. City, June 29.

#### BEDFORD UNITED MINES.

SIR.—The last sale of copper ore from this mine was 95 tons, realising 454. 10s., and for the same month 50 tons of mundie were sold for about 50%, making total returns for the month 534. 10s. The average cost for the six months presented at the last meeting, held on May 31, was about 409. per month, inclusive of everything, but if we allow the cost to be 420., there will be a clear profit on the month's working of 114. 10s. This profit was made from driving and sinking only, except just a few men working in old ground on the north lode on tribute. I hear now that the agent has commenced stoping in the back of the 30 fm. level east in the course of ore; the men have been driving into there during the past six months, therefore we confidently expect considerably increased returns after the next sampling, which will be about 100 tons copper ore besides about 50 tons mundie, next week. J. P. Tavistock, June 28.

#### REPORT FROM CORNWALL.

June 29.—We have now reached what is very commonly the dull season of the mining year, and find matters in a state of almost total quiescence; so quiescent, indeed, that it is impossible they can remain thus very much longer. If we are to wait until after harvest for our long promised improvement in the tin market, there will undoubtedly be a considerable drop in the prices—not the value—of many shares. This, however, is not generally anticipated, and there seems to be a very general belief that there will be an advance in the first half of July. Should this be so, what with the advance in copper, we are likely to find the second half of 1882 a very satisfactory one.

It will be all the more satisfactory if the encouraging anticipations formed just now of so many dividend and progressive mines are realised. Improvements are steadily reported from almost every part of the country, from Phoenix and West Phoenix down to the extreme West. South Crofty account has again given a more hopeful sound; and there appears every prospect of a successful development not only of the Terras sett, but of other localities in central Cornwall. East Wheal Rose, too, will certainly make its mark and give a new development to lead mining—much needed.

Two miners have been killed and two others severely injured by an explosion of dynamite underground at Carn Brea. It seems impossible to resist the conclusion that the immediate cause was carelessness. The men had charge of a boring-machine, and had with them a box containing dynamite and caps, and into this they seem to have allowed the snuff of a candle to fall. The consequences were of course inevitable.

Cornwall has lost one of its most prominent and most respected men by the death of Sir P. P. Smith, of Truro, who was knighted for his reception as Mayor of the Prince and Princess of Wales on the occasion of laying the foundation stone of the Cathedral. No phase of country activity and life was there in which he did not participate; and, in addition to being secretary of the Stannaries Court, he took a very deep and appreciative interest in mining generally—as an adventurer of the old investing school, and professionally in all matters connected with modifications of mining law. His removal from us leaves the largest gap in county affairs generally which could be made by any one death.

We hear that the recent prosecutions under the Factory Acts are intended somewhat in the nature of a warning. The law is frequently broken by the small tin streamers, and the authorities are determined that it shall be strictly carried out. They have preferred, however, to begin with the larger concerns, but unless matters improve there will be a sweeping raid ere long.

Mr. John Williams, second son of the late Mr. Michael Williams, has bought the residential part of the manor of Werrington, which for so many centuries has been the moving cause of the results of the Launceston elections. The disfranchisement of the borough is generally regarded as not far off, but in any case this sale is quite a departure from the old political traditions of the property, which always used to fetch an extra amount on account of the appendant eat, and which no one would have dreamt of severing.

#### TRADE IN SOUTH WALES.

June 29.—The condition of the Steam Coal Trade, although for the moment not quite so active, may be pronounced good, and the outlook healthy. From Cardiff there have been sent away 113,267 tons foreign, and 12,941 tons coastwise; Newport, 27,039 tons foreign, and 19,525 tons coastwise; Swansea, 20,500 tons foreign, and 9,999 tons coastwise. There was some discussion a little time since about the exhaustion of the South Wales coal field, and it was proved at the time that known supplies were practically inexhaustible, to say nothing of the quantity yet undeveloped or unknown, but which occasionally is discovered in some of the more remote valleys. It is stated that there is a most valuable field of coal situated in the parish of Llantrisant Vardre. The field, which is of about 3000 acres in extent, lies between two large faults running lengthwise through the parish. A pit of 350 yards would intersect the seams of bituminous coal, including the celebrated No. 3 Rhondda, containing in the aggregate 18 ft. 8 in. of coal. The Llantrisant branch of the Taff Vale Railway runs through the middle of the parish, affording good accommodation for conveying the coal into Cardiff and other markets. The field is distant from Cardiff only 12 miles. A map of the parish has been prepared, in order to identify the position of the great faults, and the outcrops of several seams of coal.

The tin-plate trade is gradually improving. Good coke-made are now quoted at Liverpool at 16s. to 16s. 6d., and even 17s. This latter is about a paying price, but affords no profit. The dispute as to the ownership of the Nant-y-Glo Tinworks (Lion Mill) has advanced a stage. On Friday, the 23rd ult., Mr. George (Messrs. George and Scott, Newport) attempted to remove the loaded wagons under a sheriff's order, but was unsuccessful. At about 11 o'clock the same evening a Great Western locomotive was brought on the scene by Mr. Inspector Price, who attempted to remove the eight loaded wagons. Mr. Howell Thomas, the mortgagee, however, came up with a gang of labourers and a goodly crowd of onlookers, and a perfect fracas resulted. Tugs of war were indulged in, the wagons were uncoupled, rails were removed, and at last, amid groans and cheers, the locomotive drew away one loaded wagon. On Saturday morning other rails were removed, the remaining wagons were unloaded, and their freight safely packed within the works.

The iron and steel trade is improving. The amount sent away from Cardiff last week was 4028 tons, and 3528 at Newport. Of iron ore there has been received at Cardiff 13,651 tons from Bilbao, and 5509 from other sources; Newport, 15,754 tons from Bilbao, and 5119 from other places. The price may be quoted at about 15s. 6d. per ton.

The freighters at the Cardiff Docks have resolved to build a dock for themselves, and have subscribed more than 500,000. for that purpose. The rich freighters can well afford to do this, and be independent of Lord Bute, but the small percentage from dock property is not encouraging to a class of men who expect large returns

from their capital. It may be that the opposition is a mere *brutum fulmen*, discharged with the view of bringing the Bute authorities to terms.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

June 29.—The demand for coal for manufacturing uses is "creeping up" a little, and here and there rather more money is being got. Where this is the case, however, contracts are more for forward than prompt delivery. New mine coal for furnace uses is quoted 6s. 6d. per ton, and thick furnace coal at 8s. 6d. per ton easy, long weight, mined about Tipton, Darlaston, and Bloxwich. Steam coal is quoted 5s. 6d. per imperial ton. House coal ranges from 6s. to 7s. at the pits for shallow sorts, and 7s. to 8s. for deep sorts. North Staffordshire ironstone is reported this week to be selling freely, but prices are difficult to ascertain. North Staffordshire furnace cokes are also in good demand. Hard, fine, washed sorts were quoted on 'Change in Birmingham this afternoon at 15s. per ton delivered. Welsh cokes were, on the contrary, dull at 15s., delivered, for good sorts, cleaned but not washed; for washed sorts 16s. 6d. to 18s. was asked. Pig-iron was again in active enquiry, and between now and the quarterly meetings a fortnight hence vendors expect to book some further good orders. Native part-mine sorts were 50s. to 52s. 6d., and three-part-mine pigs 57s. 6d. Wigan hematites were quoted 65s., but the price was too high for buyers. Tredgar hematites were quoted 66s. Tin-plates are in steady make for home and abroad. The common bar makers have determined to advance the price of "extras." It is much to be hoped that they may be successful. Marked bars are 82. 2s. 6d. to 72. 10s. per ton.

The arbitrators and commissioners under the South Staffordshire Mines Drainage Acts held a joint court in Wolverhampton on Saturday, to hear appeals against a draft award for the usual yearly renewal of the full mines drainage rate in the new Tipton district. The rate is 9d. on ironstone, 6d. on coal and slack, and 3d. on limestone and fire-clay. About 25 owners sought graduation. The decisions were reserved in all cases until the award of the following Tuesday, which has not yet been made public. At the same time an award was made for a penny mines drainage rate in the Kingswinford district, to clear off a debt of some 3000l. due to the commission for pumping expenses, left unpaid when the district recently voted itself out of the provisions of the Act. On Wednesday last the Tipton rate was formally levied.

The finished iron trade of North Staffordshire is without much change. The mills and forges are scarcely able to make the full number of turns. Orders for ordinary merchant bars, however, are coming in somewhat more freely, and prices, though low, are a little better sustained. The demand for plates remains tolerably brisk, as also does the demand for the heavier sections of rolled iron. Pig and ironstone are in good request and value, considering the condition of the finished branches.

#### TRADE OF THE TYNE AND WEAR.

June 28.—The coal and other staples of this district continue on the whole good. There is certainly a large volume of business done in nearly all branches of trade, but it is held that generally only moderate profits are realised. The shipments of coal and coke have been very considerable during the past week. The shipments of fire-bricks and fire-clay goods generally have also been large. A large quantity of coke has been sent from the Marley Hill and Garesfield districts and other localities during the past two weeks to the west coast, especially to the Workington district. Mr. R. Dickinson, owner of the Depton Collieries, has opened another pit, which will yield valuable gas coal. It is called Depton Pelaw Main. From the analyses of the coal the yield of cubic feet of gas per ton of coal is very good. The old colliery in Bath Lane, Newcastle, which was worked about 30 years ago, is in course of being re-opened. The Elswick Coal Company have put down new plant, and a further sinking of 40 fms. from the upper seam will be made to the lower seam, where it is expected that a good house coal will be reached. Thirty years ago this colliery was in the outskirts of the town; but at the present moment it is almost in the centre of it, and the working of this coal in such a position will, no doubt, prove a great boon to the inhabitants of the still rapidly-increasing town. A presentation was made on Friday to Mr. A. S. Palmer on the occasion of his removal from Wardley Hall to Usworth Hall, he having taken the management of the Usworth Collieries, which was recently purchased from Sir Geo. Elliot and partners by Mr. Jno. Bowes and partners. The presentation consisted of an illuminated address to Mr. Palmer, and to Mr. and Mrs. Palmer was two very handsome and valuable clocks with ornaments to match. Mrs. Palmer was also presented with a diamond pendant. The Wardley Colliery was opened about 14 years ago, but its progress has been most seriously retarded owing to the occurrence of a series of "troubles" or faults. These obstacles have, however, now nearly all been surmounted, and a large output of coal is expected to be made shortly—about 1200 tons per day at least.

The wretched strike at the Ushaw Moor Colliery still continues, and nearly six months have elapsed since it commenced; a more stupid and obstinate affair never occurred in this district. So far as we are aware there are no real obstacles between the parties to prevent an arrangement being come to; it is simply a fight as to who has to be master, and there is certainly blame to be attached to both the parties. An incident occurred on Saturday which shows the state of feeling existing between the men who are employed at the colliery and the strike hands. A strike hand and a so-called "blackleg" met in the road, when the former made an attack on the latter, the "blackleg," however, pulled out a revolver, which he was fortunately prevented from firing, as it was found when examined at the police-office that it was loaded. The district of Ushaw Moor is kept in constant turmoil owing to this miserable squabble, and there are cases weekly at the police courts arising from the dispute.

The coke trade in Durham had its rise with the advent of the railway system, when coke was used almost exclusively for locomotives. All this, however, was changed a few years ago, when the use of hard steam coal was introduced for use by locomotives; but other uses have been found for the coke produced, and the make at present is much larger than at any former period, and it is estimated that one-half of the coal produced in the Durham coal field is used in the manufacture of coke, which is supplied to the ironworks in Cleveland and Durham, and also to West Cumberland. A considerable quantity is also exported to Spain and other countries. For a long period the coal was simply converted into coke, and no attempt was made to utilise the by-products; but upwards of 20 years ago attempts were made to utilise them, but these attempts were unsuccessful. It is well known that some of the gasworks owners realise large sums (from 17. to 27. per ton) for the ammoniacal liquor produced in distilling. The coal and coke yields large quantities of this liquor. The value of the liquor generally wasted has been estimated at 1,350,000l.—that is the amount which might be extracted from the coke used in the iron manufacturers alone. Renewed attempts have been made lately near Crook, which is a great coke-making centre, at the works of Messrs. Pease to utilise these valuable products, and at present there appears to be every prospect, if not a certainty, of success. The system that is being tried is that known as the "Simon-Carver" system, and at the works of the Terre Noire Company it has been very successful. The coal is rapidly carbonised in a closed vessel, and the volatile products are burnt outside after being deprived of the tar and ammoniacal liquor. The improved coke oven is heated all round as well as at the bottom, and the coal is thus rapidly and completely coked. The experiment of the Messrs. Pease is likely to be extended to other parts of Durham, and it is likely to lead to important results, and probably to cheapen the cost of the manufacture of coke. The pig-iron trade has been rather quiet this week. The firm feeling in the Scotch iron trade has had a good effect. There is, however, little variation in prices. Makers are firm, and there is an evident wish to advance prices, but this has not yet been effected. Pig-iron, indeed, cannot be advanced at present as manufactured is falling. Ship-plates are now sold at 62. 15s., and even less in some cases; bars are 62. 2s. 6d.

The price for heavy steel rails is 62. 5s. Some iron ore mines which have been closed for a considerable time are to be re-opened—the

Leverton and Loftus Iron Ore Mines. Morrison and Co.'s Iron Ore Mines at Britton, which have been only partially worked, are to be fully worked. The Skinninggrove iron furnaces in Cleveland are also to be re-opened. The prices of pig-iron are with merchants' 43s. 3d. The shipments of pig-iron have been considerable during the past week, and a considerable quantity of manufactured iron has also been shipped to America, Rotterdam, and other foreign places. The stock of warrants in Messrs. Connal's stores has decreased 2057 tons, and stands now at 125,855 tons.

The iron shipbuilding trade, and all other trades depending upon it, continue extremely brisk in these rivers, and most other important trades are good, except the chemical trade, which has been so long depressed. There has been a better demand of late for the chief chemical products, and prices have to a certain extent recovered in consequence. An attempt was made a few days ago in Newcastle to sell 1000 10l. shares in the Tyne Chemical Company, the largest chemical works in this district: 72. 10s. had been paid on these shares, but no offer could be got for them, which shows clearly the low state that this trade has fallen into.

NORTHERN IRON TRADE AND THE BOARD OF ARBITRATION.—The adjourned meeting of the board was held at Darlington on Monday, the main business being to receive the report of the voting at the different works on the questions submitted to them last week as to whether the Board of Arbitration should be continued. The returns show that the number of men who are subscribers are 9809, and 4117 men voted in favour of continuing the board, and 3229 against it. This gave a majority of 11 works in favour of the board, and 9 against it. The result is far from satisfactory. However, after some discussion Mr. Whitwill, the Chairman, remarked that they were bound by the arbitration award to the end of October; and, on the motion of Mr. Head that the *status quo* be maintained till the expiration of Sir Joseph Pease's award, this resolution was carried unanimously, and the meeting then terminated.

#### REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

June 29.—Replying to "Enquirer," the only nickel mine at present worked in the United Kingdom is that of Foel Hiradug, in Flintshire. At this mine the ore consists of nickeliferous iron ore mixed with cobalt. The production of ore last year was 49 tons, 3 cwt. 1 qr., of the value of 297. 6s. 4d. I am glad to see a promising report of the Prince of Wales Slate Quarry in last week's Journal, and trust the new explorations may be satisfactory. The Festiniog Slate Quarries seem to have come to their senses and to have found out what should have been plain to them, that less work would necessarily involve less pay, and so they continue at work. Lead mines all around are suffering from low prices, and there is not anything special to report of any one of them. Among the colliers there are still spasmodic outbreaks of discontent, but they are gradually settling down to regular work. The Preamble of the Wrexham, Mold, and Connah's Quay Bill has been declared by the Lords' Committee to be proved, much to the rejoicing of the whole neighbourhood, especially Wrexham.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

June 29.—Some of the ironworks in Derbyshire have become more active, and there is a large output of pig, no less than 43 out of 56 furnaces being in blast. The foundries are now fairly employed, and it appears that Oliver and Co. (Limited), so well known in connection with mining machinery and appliances have been put on the Government list as contractors, a position their specialities certainly entitle the company to. Lead mining has been going on much as usual, the output being kept up to the average. Some of the lead mineowners complain of the low price they are obliged to take for their ore, the Eyam Company having received at the rate of 72. 2s. per ton for what they sold last year, which the directors state is in consequence of their being little or no competition, and have in the interest of the shareholders entered upon the tenancy of the smelting-furnace at Middleton Dale. But seeing that the production is comparatively small it may be questionable whether the venture will be a profitable one. It is proposed, however, to again try the Globe Mine, belonging to the company, but with the wise proviso, "as soon as the finances will allow" such to be done. The colliers are not working much more than four days a week in most instances throughout Derbyshire, although there are a few doing rather better. The season, of course, is much against the house coal trade, but several of the pits have been doing tolerably well, so far as London is concerned, but the prices are so low just now that it is difficult to see how any profit can be made.

A ton of coal is delivered to the London consumer for 19s.; the carriage and truck hire will be about 8s., and if terminals are put down at 1s. and cartage from the depot at 3s., there is only 7s. left for the merchant for profits, expenses of offices, clerks, and with which to pay for the solid material itself. It will be seen that the colliery owner's position is by no means a good one just now. Steam coal has been going off tolerably well of late, but not by any means equal to the productive power. A large tonnage is used at the blast furnaces, and a good deal is taken for locomotives; but the great want, which has been frequently pointed out, is that of a near port for shipment. Two or three collieries are able to send to Hull, but the other places for shipment are Sutton Bridge, Wisbeach, and Lynn, all a long way off. Attention has been directed to Boston, where new docks and landing stages are now in course of construction, and when these are completed there is every reason to believe that advantage will be taken of them by the colliery owners in both Derbyshire and Nottinghamshire. Not so much coke is being made as might be expected, although the coal in Derbyshire is well suited for the purpose, so that this important branch of the coal trade is left to other districts, and large quantities of coke are imported into Derbyshire from South Yorkshire for the blast furnaces.

Trade in Sheffield continues good, more particularly as regards the heavy branches. There is now a strong run on armour-plates for our own and other Governments, and Messrs. John Brown and Co. are about to enlarge the rolling department at the Atlas Works, so as to meet the increasing demand made upon their resources by various Governments. In sheets, boiler, and strips a good business is also being done, and the mills generally are kept going to their full extent. With a slight reduction in the price of hematite pigs there has been an increased business done in it for both Bessemer and crucible processes. Steel rail makers are doing well, but the prices and the competition are such that the margin of profit is but small. Billets and special qualities of Bessemer for tools, and some descriptions of cutlery have gone off well, and a good deal has been made up into railway materials. Cutlery manufactures have been doing well in table and other goods, and there has been some improvement in the demand on American account. Light agricultural implements, a recent speciality in Sheffield, and lawn mowers as well, have been in brisk request, Messrs. Crowley and Co. as regards the latter having obtained the highest position, their mowers being admitted to be A1. Some of the foundries are favourably off for business, more especially as regards machinery for mineral crushing and coal washing, specialities that are peculiar to the Saville-Street Foundry Company. There is also a better demand for cooking ranges, stoves, gas, and water pipes, and builders' castings.

The coal trade of South Yorkshire is anything but healthy just now, owing to the low prices at which coal of all kinds has to be sold at. Steam qualities go off well, but in very few instances are the colliery-owners able to obtain a higher rate than 6s. per ton. In engine coal a rather good business has been done with Lancashire and Cheshire, but gas coal is quiet.

The borings for coal which have been carried on for some time at Westbank, near Carlton, have proved successful, in so far that good coal has been reached. The thickness of the seam has not yet been divulged. The discovery is precisely in accord with the scientific evidence recently given before the House of Commons' Committee on the Hull and Barnsley Extensions by Prof. Green, of the Yorkshire College. The information, however, which has crept out goes to show that the strata extends in this direction, continues under the parish of Rawcliffe to the boundary of the Airmyn estate, ending on

the farm of Mr. Bladworth, J.P., of Percy Lodge. In another direction it reaches Rawcliffe Bridge and the line of the Goole and Knottingly branch of the Aire and Calder Navigation. The news as it is spread in the district is exciting considerable attention, as it may prove to have not only a great influence on the Hull and Barnsley Railway, but on the port of Goole.

### Meetings of Public Companies.

#### ST. JOHN DEL REY MINING COMPANY.

The annual general meeting of shareholders was held at the Cannon-street Hotel on Wednesday—Mr. JOHN HOCKIN in the chair. The CHAIRMAN read the notice calling the meeting, and the minutes of the last meeting were read and confirmed.

The report and accounts were taken as read. The CHAIRMAN said: Gentlemen, in making a comparison of the work accomplished this year with previous years, I will omit altogether last year, for it was, as you are aware, an exceptional year, on account of the interruption to the ordinary work in the mine, occasioned by the adoption of an entirely new and improved system of haulage. But if we compare the results of this year's working with 1879-80, the comparison is in favour of the year just closed. In 1879-80 there were quarried and brought to the surface 74,315 wagons of mineral. This year the quantity has been 95,679 wagons, or nearly 20 per cent. more in bulk. It is true that the difference in weight is not so great, for, as is explained in the report, a given bulk of mineral, composed of a large percentage of pyrites, weighs much more than the same bulk of less pyritic mineral; and the difference in this respect between the mineral treated in the years 1879-80 and 1881-2 is as '84 is to '70—that is to say, the wagon of 1879-80 weighed '84 of a ton, and the wagon of 1881-2 only '70 of a ton; and as the load lifted at a time is limited to four wagons, without reference to their weight, bulk becomes the criterion of work done. A comparison, too, of the cost at which the mineral has been quarried, hauled, and treated, including all expense of management at the mines, shows in favour of this year. It was 28s. 7d. per ton for 1879-80, and 26s. 3d. for 1881-2; but base the comparison on the wagon, the result is still more favourable—24s. 1d. per wagon for 1879-80, and 18s. 6d. per wagon for 1881-2. There is one element, however, over which we have unfortunately no control, which has more than counteracted these favourable results—the gold contents of the mineral treated. As we have had this year more bulk of mineral to turn over of a low percentage, so we have had less gold to pay us for the labour. The average yield of the mineral treated in 1879-80 was 6.314 ounces per ton; in 1881-2 it has been only 4.515 ounces per ton. The difference in money is equal to 12s. per ton, or 46,477l. on the whole tonnage of the year. Had we been favoured with equally good mineral this year as two years ago we could have more than doubled the dividend of 10 per cent. which we pay this year. (Hear.) Under these unfavourable circumstances every effort is being made to meet the diminished value of the ore by increasing the output and economy in handling and treating the mineral, and in this last respect our efforts have been already attended with some success, for during the last three months—February, March, and April—the total cost of treatment, which, as I said, was 28s. 7d. for the whole year, has been reduced to 22s. 6d. for these three months, and it would no doubt have been reduced still more but for the unfortunate accident in the mine from flooding, breakage of pumps, and other casualties which you have been already made acquainted with. One of our difficulties as regards increasing the output has been scarcity of labour, and seeing no probability of obtaining increased numbers in the neighbourhood, we have for some time been endeavouring to obtain a sufficient number of Chinese labourers to make up the requisite numbers. Three years ago we obtained 10 of this nationality from California, and they proved so satisfactory that we endeavoured to obtain further numbers from the same locality, but failed on account of the immigration into California from China having received a check from the hostility entertained to the Chinese in America. We then turned our attention to China, a treaty having been concluded between Brazil and that country; here, however, we had to contend against insuperable delays and difficulties, and it is only within the month that we have succeeded in getting 108 of these labourers landed at Rio. By telegram we learn that they had safely reached Morro Velho, with the exception of a few sick left in the hospital at Rio. As this addition to our force will enable us to fully man the mine we hope thereby to be able to increase the output. I have already referred to the casualties to the pumps. As the mine deepens we find the pumping power scarcely equal to its work, especially when from any cause an unusual influx of water occurs. To meet this want we are now building a new and more powerful pumping wheel, which we hope will be ready before the next wet season. Before leaving the subject of the mine, I think I should again refer to the continuing decline in the auriferous properties of the mineral, and give the meeting the latest information we possess in regard to the appearance of the lode, its size and gold aspect. Its size you will have seen from the extract from the mine report, at page 10 of the directors' report, has been maintained in the eastern sections, and considerably increased in the western sections. Of the latter it is stated that, "Notwithstanding these parts are highly charged with pyrites their gold-producing qualities from assays made do not appear to be great." Almost the same expression, though in different words, may be found in the reports of 1856 and 1857. During these and the three following years the mineral quarried in the mine was of low gold contents, but satisfactory profits were subsequently made by increasing the output and rejecting the poorer mineral. This the directors hope shortly to accomplish. As the mine report from which the extract in regard to the appearance and quality of the lode in the report is taken is only up to Feb. 28, the directors on its receipt wrote out to have the latest information sent for this meeting. That has just been received, and is as follows, the date being May 18:—"On further consultation with Capt. Rogers on the appearance and quality of the lode in the several sections of the mine he expresses the firm opinion that, so far as he is warranted in judging from appearances, there is no falling off either in the extent or quality of the mineral in any of the sections where operations have recently been conducted. He thinks, on the contrary, that the large stopping area now exposed in the western section of the excavation, and which will yet increase in width as successive stopes are carried forward, together with the body of highly pyritic mineral now being uncovered at the north wall, places us in a much better position as regards supply and quality than we were a year ago. There is every reason to hope that when we have overcome the difficulties we have recently had to contend with, and obtained the expected addition to our labour force, the output and yield per ton will be increased." If you will compare the plan of the stopes given in the report with that of last year you will see that this opinion is fully borne out by the facts. The difficulties referred to were the giving way of a dam, which kept the water back from flowing from the old to the new mine, and breakage of the pump-rods; the former had been replaced by a much stronger one, and the latter were being strengthened. As regards further reasons for the decline in the value of the mineral, the least related our efforts to bring about this object, and though the experience of the year do not show any practical beneficial results we hope they may lead up to improvement in this long-desired object. We hope also to effect some economy of labour in this department. At the Culaba Mine efficient work has been done in driving the deep adit which, by machine boring, was extended at the average rate of about 14 ins. a month during the year—three times as fast as experience showed us we could have driven by hand labour. No similar work has ever been accomplished in Brazil. On its commencement it was estimated that its length before reaching the lode would be 300 fms., though the exact underlie and dip of the lode was not then known; on 300 fms. having been driven the lode was intersected a little east of the forebore of the adit. We are now informed by telegram that 20 heads of the new 43-head revolving stamps in the course of erection have been got to work so that we shall soon be in a position to treat the mineral extracted on a much larger and more efficient scale than hitherto. Since we commenced opening this mine we have stamped 10,500 tons of mineral, the produce of which has realised 20s. 2d. per ton. If, as we hope, we can extract the mineral in future at less expense, through the deep adit, and treat it more efficiently by improved machinery than hitherto, there will be a fair margin of profit when we come to treat large quantities, which the lode from its great size is capable of giving. The provincial tax on the gold question remains still unsettled. The present rate of the tax (1 per cent. on the gross produce) is from one point of view perhaps more favourable than the previous tax of 4 per cent. on profits, as it enlists all producers of gold on our side in opposition to it. The directors have taken steps quite recently to bring the matter again before the Imperial Parliament, and constant efforts are being made in the province to convince the deputies of the impolicy of the tax, as being a direct discouragement to mining enterprise. (Hear, hear.) In the report we announce with regret the death of Mr. Pearson Morrison, the late superintendent of the mines. I can only say there was never a more zealous, hardworking officer in the service of any company. He devoted himself up to the last day of his life, I may say, to your service. When he was at Rio, and very ill indeed, he did not relax his efforts on your behalf, and even after he came to England, and was evidently a dying man, his heart was full of his work. (Hear, hear.)

Mr. SCHOFIELD asked whether there was any truth in the statement in the Mining Journal that the influx of water was attributable to want of drainage on the surface?—The CHAIRMAN said he believed every precaution was taken to prevent the surface water from getting into the mine, but on the occasion which was referred to, when there was such an influx of water into the mine, the rainfall was so heavy, and the floods so fearful, that it was impossible to keep the water out.

Mr. SCHOFIELD: I suppose in future we shall have regular returns from Culaba?—The CHAIRMAN said he hoped they would from the middle of next month.

Mr. SCHOFIELD asked whether there was any truth in the statement in the Mining Journal that the company had no title to the Culaba property?—The CHAIRMAN said this company had the abstract title deeds, and there was every reason to believe they were in perfect order. There were some persons who wanted part of the Culaba, but the board did not intend to let them have it.

Mr. TENDRON (a director) corroborated the Chairman's statement that there is no doubt this company possess a good title to the Culaba property.

A SHAREHOLDER asked whether any steps had been taken towards the appointment of a new manager?—The CHAIRMAN: We hope to be in the position to appoint a new manager in a week or ten days.

The SHAREHOLDERS: Will he be an Englishman?—The CHAIRMAN: Certainly; we should not appoint a foreigner. (A laugh.)

Mr. SCHOFIELD said he had put the question he did in order to show the reckless nature of the statements which were made to injure the property. (Hear.) The CHAIRMAN then formally moved the adoption of the report and accounts, which was seconded by Mr. BONAMY PRICE, and carried.

A dividend of 10 per cent. was then declared, payable on and after the 29th inst. Mr. Bonamy Price was then re-elected a director. The auditors, Mr. Spencer Herpath and Mr. George Austin, were re-appointed. On the motion of Mr. SCHOFIELD, seconded by a SHAREHOLDER, a vote of thanks was passed to the Chairman and directors, which the Chairman acknowledged.

A vote of thanks was then passed to the staff at Morro Velho, and a resolution also passed expressive of the deep regret of the shareholders at the death of Mr. Pearson.—The meeting then broke up.

#### DON PEDRO NORTH DEL REY GOLD MINING COMPANY.

The adjourned ordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Wednesday.

General DOWNING in the chair. Mr. J. DAWSON (the managing director) read the notice convening the meeting. The report and accounts were taken as read.

The CHAIRMAN said the shareholders were probably all thoroughly acquainted with the state of the mines, and with all that is going on at them, but if any additional information was required he would ask the managing director to give it, as he could do so succinctly and clearly. He regretted that personal allusions had been introduced in the circulars which had recently been issued with regard to the company. He (the Chairman) joined the board in 1882 at the request of the gentleman who was then at the head of the company, and he had certainly tried to do the best of his ability, as his colleagues had also tried, to carry out the wishes of the shareholders. He was referred to in Mr. Boydell's circular, but he did not understand what it was he was required to explain. If Mr. Boydell had any questions to ask him he would answer them fairly and fully, but he was quite ignorant to what Mr. Boydell alluded. The report dealt fully with the position of the mine, and, as far as he could judge, matters seemed to be going on as well as could be hoped for under the circumstances. The great point before them was with regard to the board, and any addition that could be made to it to strengthen it in any way. He would be only too happy to obtain the assistance especially of a gentleman acquainted with mining in the adjoining formation. They also wished to have a gentleman who would assist them to put the finances of the company in a healthy condition.

Mr. RYAN endorsed what the Chairman had said as to the desirability of avoiding recriminations, and his reply to a reference to him in Mr. Boydell's circular, said he took 70 shares of the recent issue at par, and a little later on he had sold 100 shares at 10s. each to take debentures, so that he was 20 shares and 30l. worse off than if he had not taken up any of the new shares. He took more than double his share of the debentures, and therefore did more than he was called upon to do.

Mr. DAWSON stated that since the issue of the report only two letters had been received from the mines, one dated the 18th and the other the 24th May. In the former reference was made to the fluctuating character of the ground in the gully. In the latter it was stated that the branches of the lode still maintained their size, though fluctuating very much in yield. Good samples were obtained, but, as a rule, the lode was poor in quality. It was hoped that they would soon be able to send the stuff through the shoot to the adit level, thus avoiding much delay and expense, and enabling them materially to increase the output and improve the results.

Mr. C.S. HILL thought it desirable that the meeting should not terminate without some distinct reference to the correspondence which had been issued by Mr. Boydell and the board, for he could not help thinking the charges and insinuations against the directors had been made broadcast. Mr. Dawson had, he believed, devoted himself thoroughly to the business of the company. But putting aside recrimination and recrimination, he wished to ask for information with regard to the constitution of the board. There were only three qualified directors, and it was stated in one of the circulars that the increase of capital had not been legally effected; this latter charge was, however, disposed of by the letter from the Companies' Registration Office. It was no doubt true that the directors would find a difficulty in getting shareholders to accept the unprofitable and disagreeable office of director, but under the circumstances he thought the matter should have been brought before the shareholders.

The CHAIRMAN replied that the board had done so, and several of the large shareholders had been applied to, but they had declined to join the board, including Mr. Hill himself.

Mr. HILL still contended that the fact should have been stated to the meeting, and the shareholders have been asked to take up the matter or indemnify the directors, for they had been in the present position for a long time. Mr. BLVET (the solicitor), in reply to Mr. HILL, stated that the qualification of the directors was fixed at 250 shares, by the amendment carried in 1873. Previous to 1869 Mr. Dawson had been the secretary of the company, but a resolution was passed in that year empowering the board to appoint a managing director, whether qualified or not qualified to hold the position of director, and under this power Mr. Dawson was appointed managing director to the company, and he exercised the same powers as the other directors possessed. But supposing that the point raised was a valid one, and that Mr. Dawson was not empowered to act, he maintained that Article 58, which stated that, in the event of a vacancy occurring, the remaining directors should continue to act until the vacancy was filled up, was quite a sufficient authority for the position held by the directors. The matter had been brought before the shareholders at every meeting, and several of the shareholders had been asked to join the board.

Mr. HILL still contended that the fact of the board being below the legal number should have been mentioned in each report.

Mr. F.R. BOYDELL said he had alluded in his circular to the presence of General Downing at the meeting in November, 1872, because the directors' report contained a special allusion to the name of Mr. Haymen, who was then a director of the company. Whatever might be said, the fact remained that up to that time very substantial dividends were paid, and that since then nothing whatever had been received by the shareholders, and the capital account had been raised in 10 years from 53,000l. to 114,000l., and there was a further sum of 20,000l. payable to the company as interest on the debentures. He could not think that business men would allow this thing to go on indefinitely without making some alteration. The directors stated that the mine could be worked with profitable results, and it was now for them to substantiate that statement. If something was not done soon creditors would seize the property, and it would be lost to the shareholders. Twelve months ago it was stated that there would be no difficulty in forking the mine, but it was still in the same position with respect to water as it was then. (Hear, hear.) Mr. Boydell also alluded to the fact that the directors had been asked to receive him because he had not been a shareholder in the company for any length of time.

Mr. DAWSON replied to the points raised at length. He contended that the misfortunes of the company had not arisen from any change of direction or management, but simply from the fact that the quality of the lode had fallen off from as much as 9 ounces to the ton to about 2.27 ounces. He also referred to the difficulties which had been experienced in connection with the mining machinery, adding that the machinery had been ordered and sent out under the best advice obtainable.

In the course of a long discussion on the question of draining the mine, Mr. DAWSON said the old mine would be drained as soon as they had funds to do it with. The operations which were now going on at the surface would probably put a very different complexion on things.

It was ultimately arranged that an extraordinary meeting should be called within two months to decide upon the future operations of the company, and it was agreed that in the interval the board would endeavour to secure the services of additional directors.—The report and accounts were then adopted.

The retiring director, Mr. Ryan, was re-elected, and the auditors, Messrs. Quilter, Ball, and Co., were re-appointed.—The meeting then closed.

#### THE RUBY AND DUNDERBERG CONSOLIDATED MINING COMPANY.

The second ordinary general half-yearly meeting of shareholders was held at the Cannon-street Hotel, on Tuesday.

Mr. W. A. MALCOLM in the chair. Mr. J. FORSTER HAMILTON (the secretary) read the notice calling the meeting. The report was taken as read.

The CHAIRMAN said—Gentlemen, the next and almost our only business to day is to present to you this report, and ask you to receive it, for which purpose I will close with a motion. I almost regret that we are met to-day, inasmuch as I have little to say to you beyond what is contained in the reports placed before you from week to week of the work done at the mine, and what we have done here and there, with which most of you are acquainted. The weekly reports have been always published as we have received them, and we have given you a *précis* of what has taken place, so it leaves me little to say, but I shall be pleased to answer any questions. I think I had better read the special reports from the mine which were asked for by the directors in anticipation of this meeting. [Lengthy reports from Mr. Rickard and Mr. Peters were here read.]

The CHAIRMAN: I may mention that from a letter received from Mr. Rickard, immediately on his arrival at the end of April, when he inspected the mine, he stated that the prospects of the mine never looked better. The last report which we received from the mine was the usual weekly report, which has not been published, and it may be interesting to you to know the latest news. [This will be found in the usual place.] In addition, there is a telegram saying that there is no change in the mine since the report was sent. You will see that a large amount of prospecting ground has been opened in the Dunderberg, and the executive in Eureka are devoting their attention to making the mine into a good mine. We have a large amount of ground not explored in the westerly direction, and that ore is there was proved by the fact that shortly after our last meeting the ore ground was struck there, and we may look forward in the hope that that ore ground contains a considerable quantity of ore, and that it will be remunerative to the shareholders. It is almost a pity it was discovered at the 700, which is the bottom level, and to get it it is necessary to sink lower down. A drift will be commenced under the ore body, and as soon as it arrives there the ore will be extracted, and I sincerely hope, and for my own part I believe, we shall have a large heading to work upon. (Hear, hear.) The shipments at present, I may mention to you, are small, because it is not an economical mode to take the ore from below; all we take now is simply what is taken in the process of exploration, and the small quantity of ore which we are now working is from the upraise above the 700 ft. level. I shall be happy to answer any questions which any gentleman may wish to put.

Mr. SCHOFIELD asked whether the directors had carried out the recommendation made at the last meeting and appointed Mr. Stewart a director.

Mr. BLADON asked the average grade of the ore; also what were the expenses, and also how far the returns went to meet those expenses? Mr. GEORGE BATTEN asked whether the \$5000 return in the month of May were obtained from sinkings and drivings or from stoping? Did the \$6000 approximate to the working expenses? Why had not more attention been devoted to opening up the Bullwhacker and El Dorado Mines? Were there no means of rapidly developing the Dunderberg Mine, and could not more be done in the way of driving levels and exploring for fresh discoveries? What had been done towards discovering the beds of ore which were supposed to exist under the Home Ticket Mine?—The CHAIRMAN in reply said that immediately after the last meeting the directors met and proceeded to elect Mr. Stewart as a director of the company, and a notice was sent to him to that effect, but Mr. Stewart did not attend from that date until last Tuesday, when he attended a board meeting for the first and only time since his election, which took place on Jan. 10. As regarded Mr. Dickson he attended every board meeting until recently, when some other duties somewhat interfered with his regular attendance, but he had no doubt that Mr. Dickson would make arrangements to resume his punctual attendance.

A SHAREHOLDER asked why Mr. Stewart's name was not on the report? The CHAIRMAN said the directors sent a proof to Mr. Stewart of the first report issued after he had been elected as a matter of courtesy, but Mr. Stewart objected to his name being published as he had not attended the meetings. As regarded the average grade of ore, the occasional samples which had been taken had varied from 43s to 48s, but such small samples might be misleading, and they would be better able to tell the average when they worked large quantities. As regarded profits, as long as they were not stoping they could hardly expect to make profits. Mr. Rickard stated:—"No ore has been extracted from the ore bed below the 700, with the exception of that which was taken out in the exploration." As regarded the returns for May, they amounted to about \$6000, but they could hardly call that the result of the month, as it was the result of ore which had been accumulated beforehand. The directors wanted to get the ore out as quickly as possible. They might safely leave the opening up of the mine, as economically as possible, to the management out there. The directors had instructed Mr. Rickard to explore the Dunderberg Mine as fast as possible. There were several points being explored, particularly towards the west, where the virgin ground lies. They were constantly coming across small ore bodies, which he hoped were indications of ore beds which still existed. The Bullwhacker was being explored, and if it turned out successful the directors would put on a larger force. In the meantime they were running a drift under the ore bed. With respect to the Lord Byron, they had 200 ft. to drift before they commenced cross-cutting, and of that they had done 50 ft. The El Dorado Mine had been leased to well-known people in Eureka, who had spent money upon it, but up to the present time there had been no sufficient return, but the character of the lode was particularly fine, and the people to whom he referred believed that they would be recompensed for their labour. In conclusion the Chairman moved the adoption of the report.—Gen. DOYLE seconded the motion, which was put and carried.

The CHAIRMAN said that before the meeting he had had great pleasure in proposing a vote of thanks to the staff in Eureka, who had worked under difficult and discouraging circumstances, but the directors had every reason to be satisfied with their conduct and ability. (Hear, hear.)

Mr. YOUNG seconded the motion, which was put and carried.

On the motion of Mr. BLADON, seconded by Mr. G. BATTEN, a cordial vote of thanks was passed to the Chairman and directors, and the meeting terminated.

#### KIMBERLEY CENTRAL DIAMOND MINING COMPANY.

The second annual meeting of shareholders was held at the company's offices, Kimberley, on May 27.

Mr. G. BOTTOMLEY in the chair. Mr. K. TUCKER (the secretary) read the notice convening the meeting, and the directors report and statements of account were submitted.

The CHAIRMAN, in moving the reception and adoption of the report, said: I may state that it has been a very anxious year—at least the former part of the year—because we were not in a position to do what our shareholders expected from us. From the report to-day, and from previous reports, you know the reasons why we have not done what we were expected, and what we hoped to do. You all know that in diamond mining here the labour is very extensive, not only in the mine, but around the mine, and it requires a large amount of care, thought, and management, not only on the part of the managers, but also on the part of the consulting directors and the directors generally. I may say that it has been quite a pleasure to me, as Chairman of this company, to know that everyone connected with this company in every department has tried to do his best to further the interests of the company.

The meetings of the directors have been held very regularly, sometimes once a week, sometimes twice, and when occasion required oftener. There has been no great difficulty in getting the directors together, and when we really want directors' meeting at any hour of the day we can get the directors together generally in three hours. I think that speaks a great deal for the interest taken in connection with the working of the company. If any shareholder wishes to make any remark, or wishes to ask any questions, I shall be personally glad to answer them as far as possible.

Mr. TRACEY: With reference to what has now fallen from the Chairman, I would mention two points which are not referred to in the report, which I take it are of considerable importance—the first to the company in particular, the second to the whole mining community—namely, the work our directors have done at the mining board, and the time they have taken in assisting the framing of the new mining ordinance, which is now before the House of Assembly; I know they have taken a great deal of trouble and expended a lot of time.

The CHAIRMAN: In reference to the mining board, gentlemen, I am very nervous when I speak of matters I am connected with myself. We have had a great deal to do in connection with the Central Company at the mining board. Those of you who have been here and those who have been away in England, and have received and watched the papers regularly, will have noticed the large amount of work we have had to do in the mining board. I think the reports of those meetings will show that your representatives on the board have had very anxious duties to perform during the past year in order that the company might not suffer from the operations of the board. It is no use for me now to refer to what has taken place in the board. We have striven to do our best in the interests of the company, and although we have not done all we wished to, we do not know what we have prevented being done against us. In reference to the mining ordinance, that is a thing in which directors have taken a great interest and spent a great deal of time, in rendering assistance, so as to have this ordinance as perfect as possible. I believe it is not possible to get it passed this session, but next session we shall, and then we shall be enabled to carry on our work in the mining board, and expect fair play and no favour in all work that comes before it.

Mr. PAM: Taking the item "29,930l. 13s. 2d., profit and loss, value of construction and maintenance of plant written off general expenses for the year," am I to understand that has been written off this year?

The SECRETARY, in explanation, said: The 90,000l. is the actual value of the plant. The plant in this company is not represented in the capital of the company. The actual value of the plant at the present time is 90,000l. To make that value amount to the value of the plant in the way of wages, and accounts have been paid to various stores, which have gone towards the construction of the plant. These amounts have been charged to wages account and to general expenses, and they have to be written off again because the work for which they are charged is actual profit to the company in the way of plant.

Mr. M. MICHAELIS: I followed up the records of the meetings of the mining board with great punctuality, and I think I can fully agree with what our worthy Chairman has said, also with what Mr. Tracey has remarked on the work of the directors representing us in Cape Town. I have also heard with very great pleasure that through the exertions of Mr. Benningfield we have been amply supplied with boys, whilst, I think, other companies have had to struggle very hard for a supply. I have therefore great pleasure in proposing "That those directors who have so exerted themselves in our interests be rewarded out of the profits of such work by the sum of 2500l. being set aside for division amongst them, and that two members be appointed for the division of the same."

Mr. PAM wished to second this motion, but was informed that not being an original shareholder he could not vote or second a motion, although he could speak. The motion was carried with the understanding that the 2500l. was in addition to the 22,240l. attendance fee for each board meeting. Messrs. St. Ledger and Tancore were re-appointed auditors.

The CHAIRMAN: The next piece of business is to appoint directors in accordance with clause 46 of the trust deed, which reads: "No person shall at any time be elected a director of the company unless he shall be a proprietor in his own right of at least 400 shares in the said capital stock, and no uncertificated insolvent shall be eligible to the office of director, and no two persons carrying on business as co-partners in any firm, or related to each other within the third degree of consanguinity or affinity shall both be eligible to serve at the same time as directors." Of course 400 shares there means 40 original shares, the 400 shares applies to the 10l. shares. Then clause 50 says: "At the annual general meeting to be held on May 27, 1882, the three directors whose names shall then stand at the bottom of the list of directors shall go out of office, and for this purpose the rotation of the directors shall be as stated in section 48, and upon the same day in each succeeding year the three directors whose names shall then stand at the bottom of the list of directors shall in like manner go out of office, and be succeeded by directors to be elected as hereinbefore mentioned, and who shall be placed at the head of the said list, provided always that nothing herein contained shall prevent any director or directors, so going out of office, from being eligible for re-election."

Messrs. Benningfield, T. C. Maritz, and W. F. Tracey were then elected directors for the year, and they nominated as their "alternatives," to act in their absence, Messrs. Thomas Wood, T. F. Gervers, and F. C. F. Price.

The CHAIRMAN: During the past year Mr. Tracey was my alternate. I had no occasion to call upon him, but now he is elected to the position of a director it will be for me to appoint another alternate, and I would propose Mr. J. S. de Villiers.—This was agreed to by the meeting.

Mr. PAM: There is just one question which I think it may be as well to ventilate—there is a part of the report which says that the very few shares which have changed hands shows the confidence in the company. I thoroughly endorse that, and I would go further and say that a great many people who are not shareholders have the same confidence in the company, and would very much like to invest in it. I am speaking generally, not personally, but they have no power of voting for a very long time, but if anyone invests a large amount of money he would certainly like to have a say, and he may pay a good price for the shares. I do not know whether any alteration can be made in the trust deed, but I should certainly think that clause should be altered. It is not in accordance with the trust deed of any other company divided amongst shareholders that the voting power should only rest with the original holders of the ground. If that clause were altered Kimberley would get the benefit of foreign capital and foreign capitalists. That will, however, never be the case until clause 22 is altered. It is only a question I want ventilated. I cannot make it

proposition, but I should like to hear your opinions on the subject if you do not mind giving them.

Mr. BENNINGFIELD: This matter has been brought before the directors some six months ago, and the directors thought it advisable to make no alteration; the shareholders also thought it advisable to adhere to the clause.

Mr. MICHAELIS: I certainly must say we shall not get foreign capital in as long as this clause stands at present. I think, although all those shareholders at home have not strongly expressed their opinions, they have come to the same conclusion, that no merchant, no investor, no capitalist would invest in this company until this clause is repealed. Such a clause is not contained in the trust deed of any company in the public market, a company in which anybody may acquire shares. It is quite an unheard-of proceeding.

Mr. FARM: Speaking generally, I may say that the alteration of that clause might bring capital here, which influx of capital here might so alter the constitution of the mining board that every difficulty might also be done away with.

The CHAIRMAN: Well, gentlemen, this same clause has been the cause of much thought amongst the directors and shareholders, as you will remember at a meeting some time ago. I will read you a clause in connection with the last quarterly report, which summarises what has been done in connection with the matter. "Some time since your directors entered into an agreement with the South African Loan Mortgage and Mercantile Agency securing that agency for the transaction of the company's business in England, and to arrange for a quotation on the London Stock Exchange. It was, however, found that such alterations in the company's trust deed were required as could not under present circumstances meet the approval of the shareholders; and your directors have given notice to the agency of discontinuance of the arrangement from six months after January 1, 1882. It will, however, be necessary to make a new arrangement for an agency in England." The trust deed was sent home and so large a number of alterations were said to be necessary before a quotation could be obtained on the London Stock Exchange, that the directors could not see their way to them, and with regard to this clause their views quite met those of the shareholders, and it was the unanimous opinion of the meeting at the time that this clause should not be altered, and rather than alter the clause we should give up for the present the idea of a quotation on the London Stock Exchange.

Now, I am not aware that any great alteration has taken place in the minds of the shareholders since then, but it is still a subject for ventilation, and shareholders can, if they choose, discuss the subject if it is thought desirable in order to see whether circumstances have so changed as to render it desirable to do away with this clause, or to largely modify it as it exists at the present time. I think there is a modification in the latter part of the clause, not in its originality. It is there provided: "That the said period of three years shall be taken to have expired when and so soon as the original shareholders shall have sold out or disposed of more than half of the original capital stock in the company." This provision, gentlemen, was not at the beginning, but it has been put in since to meet speculation and speculation as far as possible, and we thought it as far as it was desirable to go at the time. Now the question may be asked: "It is desirable to go further and do away with the clause altogether?" It is not for me to say. Certain things transpired outside the company when that resolution was discussed, and which led us to that decision, and led us to feel that it was desirable that certain people should be kept out as long as possible. Whether circumstances have so altered as to lead us to change our opinion I am not in a position to say. Of course, we cannot expect any great rise in the value of shares until the present constitution of the mining board is entirely altered; until capital is fairly represented. Until then, I do not think people will come forward and speculate very largely unless they are thoroughly acquainted with the ins and outs of the mine. I think it quite right the question should be brought forward as it was originally by Mr. Farm, but it is a question that cannot be decided at this meeting, and if those who have been to Europe, like Mr. Brodie and others, think it desirable to do away with this clause it must be brought forward at a special meeting.

Mr. MICHAELIS: I think it would be advisable to let the matter stand over for a few months, and then call a special meeting on the subject.

The CHAIRMAN: Under ordinary circumstances it has only 12 months longer to run.

Mr. BRODIE: I beg to propose a vote of thanks to the Chairman, the directors, the managers, and employees of the company for their work during the past year.

A SHAREHOLDER seconded the motion, and it was unanimously carried.

The meeting then terminated.

#### THE MYSORE REEFS GOLD MINING COMPANY.

A meeting of shareholders was held at the Cannon-street Hotel, on Monday, Mr. THOS. KYRE FOAKES in the chair.

The SECRETARY read the notice calling the meeting, and the report and accounts were taken as read.

The CHAIRMAN said he should address himself to three points. First, with respect to the present position and prospects of the company, secondly the report of the committee of investigation, and thirdly to the petition presented by some shareholders to wind-up the company.

As regarded the present position of the company the directors in their report stated how it stood, that was to say, as to finances. The present issued capital was 95,288 shares, and the arrears of call (not including the arrears on the shares of Mr. Thomas Stevens, forfeited) amounted to 3300*l.*; the arrears due from Mr. Thomas Stevens amounted to 13,914*l.* 5*s.* There was at the bankers in India and in England 1050*l.*, besides which they had the machinery on the mine (all of which had been paid for) which cost with the freight 5734*l.* 5*s.* 7*d.* A great part of that machinery, that is the portion which was wanted to be used at once, was erected, and almost completed.

As regarded the debts of the company, there was a mortgage for 2500*l.*, which had just been paid off out of money received on account of arrears of call. With respect to other debts there was a claim of 959*l.* 1*s.*, almost all of which was due for the Government of India with respect to the transfer of the property. But there was reason to believe that amount would be repaid. The amount, therefore, available for working the mine seemed to be 3300*l.* of arrears of call, 1050*l.* at the bank in India, and there was what they might be able to get out of Mr. Thomas Stevens in respect of the 13,914*l.* which he owed.

With respect to the 3300*l.* arrears of call they might consider that two-thirds of that would be obtained. At any rate 1000*l.* they were sure of. The 500*l.* was arrears of call due from Mr. Anderson and Mr. Lindsay, and about 500*l.* for interest upon the arrears, which had not been paid up. So they might say that they had 3300*l.* independent of what might be obtained from Mr. Stevens. The directors had been communicating with Mr. Thomas Stevens and his brother, who was vendor to this company, and he had hoped before this meeting to place to lay before the shareholders some arrangement by which Mr. Thomas Stevens would propose to compromise the claim against him by the payment of so much a month on account of calls due on his shares. Then there were the 14,000 shares which had been forfeited, and which, if the company went on, would be available if they could be sold at a fair price. With regard to their present outlay it amounted to about 350*l.* per month, including every expense at London, and there seemed every reason to believe that if they proceeded to develop the property in the way now being developed, before very long they would see that the statement which had been made with respect to this property not being a valuable property was fallacious. There were other companies in the neighbourhood of this company which were daily expecting to have some good news of stamping, which would show that those properties were valuable, and, of course, would also tend to show that this company's property was also valuable; and it did seem too bad that the property should be thrown into litigation and be lost, as it undoubtedly would be if the company were wound-up. As an indication of what the bulk of the shareholders thought as to winding-up, and, indeed, as to the report, he might mention that shareholders holding over 51,000 shares had stated, by letter, that they dissented from the winding-up. Shareholders representing 45,614 shares had sent their proxies to the board, and, therefore, the bulk of the shareholders dissented from the petition commenced by Messrs. Harvey.

As regarded Messrs. Harvey's support, they had sent in proxies representing 15,581 shares, and those with 3500 shares, Messrs. Harvey and Messrs. Price held represented 13,081 shares, as against the directors' 45,614. He was very much pleased that they had such a result, for there had been statements made in the circulars and in the petition which had been put on the file, which were calculated to injure the company and the directors in the eyes of the public. He would show how very untrue the statements in the petition were, and it should be remembered that the petitioners had had the opportunity of seeing the books and speaking to the directors, and they were, therefore, not speaking ignorantly.

The Chairman then went at some length through the petition, and stated that most of the statements in the petition were untrue, or utterly misleading.

Mr. J. HARVEY said it had been stated that an offer was at one time before the board for the purchase of a portion of the property. He should like to know by whom the offer was made?—The CHAIRMAN said that a minute in the board minute book recorded the fact that Mr. H. B. Sheridan, M.P., having been introduced to the board, said he had received an intimation from parties of a wish to negotiate for the purchase of the northern portion of the property, and he was authorised to treat for it at a cost of not exceeding 80,000*l.* The offer was made by Mr. Sheridan, and he thought the amount mentioned was 75,000*l.* Having referred to Col. Arbuthnot's connection with the company, and having stated that Col. Arbuthnot was a perfectly independent person, who had put his money into the mine, the Chairman went on to say that, as regarded the statement in the petition that the property was of no value, the shareholders must know that mining was a speculation, and all they could do in an unopened mining property was to take the best advice they could as to whether the property was a good one. The directors did take that advice, and they were not the only persons who believed, or were led to believe, that the Mysore Indian District was a very valuable gold-bearing district. All the advice went to show that the district was not devoid of gold, and the mine was favourably situated for the transit of machinery, and the statement in the petition that the company did not possess any machinery was untrue. But what they wanted to do now was to escape the present position and prospects of the company, the petition being successful. He thought the shareholders had great reason to complain of those gentlemen who had rushed into litigation, because there was no doubt the course which had been taken had done great damage to the company. If they heard good news from the neighbouring mines it would have a good effect on this company's property, and no doubt they would be able to dispose of the forfeited shares, and this with the other money which the directors would have at their command would enable them to push forward the works, and make the company a success.

A SHAREHOLDER: Is there sufficient machinery there to develop the mine?

The CHAIRMAN: Is there enough to develop it thoroughly.

A SHAREHOLDER: How many stamps do you have?—The CHAIRMAN: Eight complete, and eight in course of completion.

Mr. J. HARVEY also went into some details regarding the statements in the petition, and maintained that they were correct. He said that he had lodged the petition simply for the purpose of protecting the interests of the shareholders, and in all he had done he had been actuated with the best motives for the welfare of the company. He replied to several of the statements made by the Chairman, and said that at the proper time he should be prepared to substantiate the truth of the statements in the petition and in the circulars.

Mr. KLENCK said the present meeting were not judge nor jury, and what they

wanted to ascertain was whether the shareholders had received value for their money, and was there any probability of the company being able to continue.

A SHAREHOLDER asked what Mr. Harvey expected to get by the petition?—Mr. J. HARVEY said that he hoped to get a rescission of the contract.

The CHAIRMAN said that the shareholders would get nothing out of that. At present the shareholders had the property, and if they tried to get the money back they would have to give up the property.

Dr. BUCKLE moved a resolution to the effect that the explanations afforded by the Chairman were satisfactory to the shareholders. He thought there was a seeking after personal aggrandisement and personal benefit on the part of those who wished to throw the company into liquidation.

Mr. J. HARVEY said there was another petition before the court by Mr. Bentley.

The CHAIRMAN: No, it is not a petition. Mr. Bentley has taken the course which the petitioners should have taken; like a sensible man, he has taken out a summons in chambers, which these gentlemen should have done. He formally moved the adoption of the report and accounts.—Mr. PRISTON seconded the motion, remarking that although he was dissatisfied with the past history of the company, still it was no going back. As regards the petition, he did not like it. He generally found that there was a solicitor and liquidator at the bottom of these things, and his experience was that though those gentlemen promised a great deal, the shareholders never got a farthing, and that the liquidation was carried on as long as there was anything to put into the pockets of the liquidator and the lawyer. (A laugh.)

Mr. SNELL (solicitor for the petitioners) said that if the petition had taken out a summons in the way referred to by the Chairman, other shareholders would have rushed in and done the same, and the company would have got into the hands of a wrangler. (A laugh.) The petition had the effect of stopping any such steps. The CHAIRMAN said that was not the case. The Court would not have allowed more than one proceeding of the sort. The others would have had to await the decision in the first case.

Mr. KLENCK asked what was the claim of Mr. Vazie Symons?—The CHAIRMAN said it was intended that Mr. Vazie Symons should be made consulting engineer, but he went away before the appointment was completed. He had no real claim against the company.—Mr. GRAY said he held 500 shares, and had never seen a company more mismanaged. The capital seemed all gone, and he moved that the accounts be not passed.—Col. THOMPSON seconded the motion, and Mr. EVANS supported the amendment, and expressed his opinion that the directors were liable for money improperly paid away.

A SHAREHOLDER asked whether the directors proposed to take any further remuneration before the company paid?—The CHAIRMAN: If we remain on the board we should not take fees until the mine is in a paying condition.

Some conversational discussion followed regarding the directors' fees, commission for placing shares, and one or two other matters in the accounts, and in explanation of a complaint that some time since the books of the company were not kept so well as they should be, the CHAIRMAN said that about the time referred to the secretary of the company died very suddenly, and no doubt the books did get into a somewhat improper state, which the present secretary had to set right.

Mr. PROBY said that Mr. Malcolm Low, in a letter written by him, had stated that this was a very valuable property, and that there was some excellent machinery, but the company had been unsuccessfully conducted by the manager at the mines. The shareholders must not asqu shore amongst themselves, but must have patience. He suggested that if they put some fresh directors on the board, with Col. Blair, they might possibly get something back.

Col. BLAIR said that the board held proxies for over 45,000 shares, and he represented the holders of between 30,000 and 40,000. His wish was to join in the development of the property, and he was prepared to co-operate cordially with anyone actuated with similar motives.

The amendment that the accounts be not passed pending a further investigation of the affairs of the company was then put and carried.

Mr. PRISTON suggested that Mr. J. Harvey should go on the board.

The CHAIRMAN said they had better adjourn the meeting in order that a conference might take place, and the result laid before the shareholders in some practical way.

Mr. J. HARVEY said he had no objection to join the board and do the best he could for the company, but he would not sit with Mr. Foakes and Mr. Angus.

The CHAIRMAN, after some conversation, said he had no wish to offer himself for re-election.

Col. THOMPSON proposed, and Mr. EVANS seconded, that Messrs. J. Harvey, Price, and Grey be elected directors, on the understanding that they proceed to elect General Travers to a seat at the board.

Eventually a resolution was passed to the effect that the meeting be adjourned to Friday day next, and that the directors be requested to submit the names of four gentlemen for directors.

Mr. J. HARVEY: I shall go on with my petition.—The CHAIRMAN: We will defeat you.

Mr. SNELL handed in a demand for a poll, which was refused as not being in accordance with the Articles of Association.—The meeting then terminated.

#### NUNDYDROOG GOLD MINING COMPANY.

The second ordinary general meeting of shareholders was held at the Cannon-street Hotel, on Thursday.

Captain McTAGGART in the chair.

Mr. W. G. WILLIAMS (the secretary) read the notice convening the meeting, and the report was taken as read.

The directors reported that the number of shares allotted to the public, and upon which the full 1*l.* per share has been called up, is 43,923. Of the 224*l.* 12*s.* 6*d.* appearing in the balance-sheet as arrears of calls, 1412*l.* 15*s.* has since been received, and it is believed that the remainder will shortly be paid. The cash and shares agreed on for the purchase of the property have been handed over to the vendors, the title having been found in order by the company's solicitors, and the necessary deeds executed. The total shares allotted is 76,322, leaving 23,771 shares not yet issued.

Capt. Plummer's report shows that the mines are now fully equipped with machinery, and it is considered that the company has sufficient funds remaining to ensure such proof of the value of the property being obtained, as will enable the directors to place the balance of the shares, and thus provide the necessary capital to carry the undertaking to a successful issue. The directors are much gratified at the systematic and minerlike manner in which Captain Plummer has proceeded to develop the property, and that the explorations have resulted in the opening up of quartz veins of so much promise. Special attention is directed to the favourable opinion expressed by Capt. Plummer of the veins where they are exposed to view.

Some delays have from time to time taken place owing to the sickness of the European staff, but new dwelling houses have been erected for them, and the sanitary arrangements greatly improved, much better health has prevailed in the camp. In combination with other companies working mines in the neighbourhood, the directors sent out a duly qualified surgeon to reside in the district, which has given great satisfaction to the English employees. The directors, while greatly regretting the delays which, from various causes, have taken place, are of opinion that every effort has been made by Capt. Plummer to develop the property and obtain tangible results as rapidly as possible. Nothing up to the present time has occurred to lead them in any way to alter the favourable opinion they have from the first held of the ultimate success of the enterprise. The greatest economy has been exercised in carrying on the works, and it will be in the knowledge of the shareholders that the directors have up to the present time received no remuneration.

The CHAIRMAN, in moving the adoption of the report, thought it would be well to give a slight history of the results of the company, because he believed great disappointment had been expressed and felt by many of the shareholders that no tangible results had been shown. He would not disparage the disappointment which most of them felt, because he would have been more disappointed than they all, but fortunately owing to his position as a director in the company he had been, as it were, behind the scenes, and knew the many unexpected obstacles which had to be overcome. One of the most formidable of these difficulties was sickness. The accommodation at first was very bad, and the water supply quite unfit for the consumption of the staff being sent out by the miners actually died. All these matters had to be rectified, and they had been able to avail themselves of the services of a highly qualified medical man who now resided in the district, while the employees were beginning to learn the necessary laws of health. Sickness had, therefore, been reduced to a minimum, and there need be no further fears on the score of health. Another obstacle they had to encounter was the number and extent of native workings discovered on all sides, without any trace being seen at the surface. This had caused delay, because the shafts had to be sunk deeper to get under them. This, however, was a discovery of great value and promise, as there must have been great inducement for the natives to undertake this difficult and exceptional labour. These, then, were some of the causes which had delayed the operations. The company was formed to open up and prospect a certain block of new and untried gold fields, and the board considered they had an ample sum to effect that purpose. He would not enter fully into all that had been done, the greater part being in the report. They had cut the Maharajah reef at the 95 and 60 ft. in two different shafts, and they expected soon to cut it in three other places. They had ascertained it was a true flure vein, extending in depth and length, and they believed that the time was not far distant when they would be able to employ the stamps in a remunerative manner; indeed, they hoped to be in full swing before many weeks. They had now to report that the native labour was cheap and good; they had found no difficulty as regards fuel, whether wood or coal; while the cost of carriage was not excessive, and they had ample supplies of water for all purposes. At the same time they had not the slightest fear about being able to keep down such water as might be raised with the aid of the pumps. The managers could tell them that this gold field could be worked as economically as any other field requiring steam-power. He had before pointed out that the whole future of the concern was dependent with the management. That was in the hands of Messrs. John Taylor and Sons, and under them it could not fail to be well conducted. The board were satisfied of that, and that Capt. Plummer had served them faithfully in developing the property. In conclusion, he might say that as the shareholders had now had a little insight behind the scenes, he might venture to hope that their disappointment would be somewhat assuaged, and that they looked with confidence to the future. (Hear, hear.)

Mr. S. C. HILL said it was somewhat pleasing to find that the board had unabated confidence as to the results; nevertheless, he could not help feeling that waiting was a very wearisome matter, as they had been in existence for something like 13 or 20 months without having had any practical results in the shape of produce. He understood that a small box of samples had been sent over, and he would like to know what had been done with it?—The CHAIRMAN replied that he did not think too much attention should be given to assays of samples. He would, therefore, only say that the quartz, which showed no visible gold, gave 1*l.* 10*s.* to the ton, while that which showed visible gold gave 3*oz.* 12*d.* to the ton.

Mr. JOHN TAYLOR referred to Capt. Plummer's report. That gentleman took a favourable view of the property when he arrived there, and he continued to hold that opinion, looking with confidence to the future of the company. A few months ago they had an independent report from Mr. Davis, which was in every way satisfactory. What they were now looking for were actual results, and it appeared to him they must soon have something definite to report. There was no sufficient reason for the delay in the work for several months, and to establish, he believed, the value of the vein at its present depth, and even somewhat deeper.

What they had already done would compare most favourably both as to speed and economy with that of many other companies with which they were acquainted. They might with perfect confidence leave the conduct of matters in the hands of Mr. Plummer, and he believed they would soon receive information which would be satisfactory.

The CHAIRMAN having moved the adoption of the report, it was duly seconded.

Mr. BAKER stated that he represented Capt. Richards, the holder of 800 shares, and considering the amount of money that had been spent, and the small balance left, he would move the adjournment of the meeting, and the appointment of a committee.

This measure was strongly opposed by a large majority of the meeting, and after some discussion the report and accounts were adopted.

The appointment of Mr. Orlando Webb to a seat at the board was next confirmed.

The retiring directors, Mr. H. D. H. Ferguson and Capt. McTaggart were re-elected; as were the auditors, Messrs. Turquand, Young, and Co.

Votes of thanks were passed to Messrs. Taylor and Sons, and the Chairman and directors, and the meeting separated.

#### RIO GRANDE DO SUL (BRAZIL) GOLD MINING COMPANY.

A special general meeting of shareholders was held at the offices of the company, Finsbury-circus, on Tuesday.

Mr. BURROUGHS D. KERSHAW in the chair.

Mr. J. ARTHUR MORGAN, F.G.S. (secretary and solicitor), read the notice calling the meeting.

The CHAIRMAN said: I beg to propose the following resolution, passed unanimously at an extraordinary general meeting of the company, held at the above place on June 7:—"That the regulations of this company, as originally framed, be altered, by authorising the company so far to modify the conditions contained in its company's Memorandum of Association as, by sub-division of its existing shares, to divide its capital into shares of smaller amount, as may be fixed by the said company by special resolution." I move that the said resolution be confirmed.—Mr. J. BRIGHTELL seconded the motion, which was agreed to unanimously.

The CHAIRMAN: That resolution having been confirmed, we have to proceed with the sub-division of the shares. Therefore I have now to move, "That the whole of the shares in the above company be sub-divided from 5*l.* to 1*l.*—that is to say, that each 5*l.* share be, at the option of the holder, divided into five shares of 1*l.* each."—Mr. MARTINEAU seconded the motion, which was agreed to.

The CHAIRMAN: Since the last meeting we have received a telegram from Brazil, informing us that the Aurora shaft had been communicated with the middle adit level. All difficulties with water and ventilation are at an end. He will now get out the whole of the lode matter and drive westward on the lode. I mentioned, when I spoke to the shareholders at the recent meeting, that in all probability Mr. Eddy would drive a level at right angles to the present level, so as to intercept the new lode and Meza's lode, that being the most economical way of working; and in his last letter he says he intended to do this. All the valuable portions of the lode will be taken out and run into the level and thence to the surface, without the need of any lifting or winding apparatus. He will take the richer portion to the old stamps and crush it up, and then, I think, we may expect regular remittances of gold at certain periods. The railway is progressing from Pelotas to Bage, and will be within 40 miles of Lavras.

Mr. HENRY CLEMES, the consulting engineer, who had visited the property on behalf of the company some time since, said that the railway was a most vital element in the company's prosperity. There were large coal seams at Candioti, and he wished some of the directors would go out to see what valuable property they possessed in their mines. He (Mr. CLEMES) went on, with the aid of a plan, to explain the nature of the present workings. The two lodes already discovered were Meza's and the Intermediate, and doubtless there were others north of these. These various lodes would probably form a junction sooner or later. On the south of the Aurora there was also a lode visible. Nothing had been attempted on that side. To explore the ground systematically and economically the manager will doubtless see whether there were not some cross-courses to these lodes, which would be of immense advantage in the saving of time and capital. The ore now broken and brought out of the middle adit could be all taken cheaply and conveniently to where the necessary appliances existed for treating it. The property was highly valuable, and in a virgin state, and the company should be proud to own it. It was only a question of patience to get up larger and improved reduction works as soon as possible. He was heartily glad to hear that the junction had been effected, because he knew Mr. Eddy would have worked hard to attain this in the time; in fact, Mr. Eddy had throughout acted most prudently. He (Mr. CLEMES) did not desire to see a more promising lode than the Aurora, and its inclining south and bearing were equally favourable. In bringing up the deep tunnel till cost would be additional, but it was a work that ought to be done. When accomplished and the new reduction works put up, the company would, he had no doubt, do extremely well.

The CHAIRMAN said it would be necessary to hold a meeting to confirm the second resolution.

The proceedings then terminated with a vote of thanks to the Chairman.

#### GOODEVERE TIN MINING COMPANY.

The annual general meeting of shareholders was held at the offices, Coleman-street, on Wednesday, Mr. ALFRED THOMAS in the chair.

Mr. R. CUMMING (the secretary) read the notice convening the meeting. The accounts and the following report from the agent were taken as read:—

June 1.—In submitting the following report for the general meeting, we purpose giving a summary of the work done during the past 12 months, as well as our opinion on the present and future prospects of the mine.—Higher Shaft: This is situated near the summit of the hill, which gradually rises to a height of 50 fms., into which two main adit levels have been driven, known as the deep and shallow adits. The shaft was sunk on a lode about 10 fms. south of that on which the shallow adit was driven, and at 16 fms. from the surface a communication has been made by a cross-cut from the said adit, where a railroad has been laid for getting out the work economically. Throughout the sinking the lode varied in size and value; for 10 fms. it averaged 3½ ft. wide, and yielded fair quality stamping work. Since making the communication, levels have been extended east and west 15 fms., where the lode continues similar in character to that in the shaft. We have two stopes working in the back of this drive; from these and the ends our stamps are partially supplied at present, and the output here will be increased as the ground is laid open. We recommend the continuance of these levels, and especially the eastern one, seeing there is a long extent of unexplored ground in that direction. A cross-cut has been driven south to the level of the deep adit, with the object of proving the intervening ground as well as intersecting a lode on which the ancient miners are said to have risen and sold a quantity of tin; but in bringing up a lobby to unwater our stamps-wheel, another lode was intersected, and this being some fathoms under the cross-cut referred to we suspended the latter, and put the same men to drive on the course of this new lode, and have driven east about 35 fms., where it has shown good indications, and although shallow it has produced some good quality tinstuff, such as we consider augurs well for deeper development, and with a view to proving this, as well as the lode above referred to, we are now attaching flat rods to our water-wheel and making the necessary preparations for going below the adit. One shaft has been properly timbered and secured to that depth, and as most of the fittings are on the mine we shall very soon get this in working order. There are other known lodes south of these named which it will be our aim to intersect by a cross-cut when sufficiently deep. A considerable amount of work has been accomplished at the surface. A water-wheel 14 ft. in diameter by 7 ft. abreast has been erected with 12 heads of stamps, and a dressing floor of sufficient extent to meet present requirements has been laid out, and we calculate to have about 2 tons of tin ready for the market by the end of another week; in addition to the above we have had to bring up a long and expensive lobby to unwater the wheel, and a powerful stream has been diverted from the main river and brought in over it. A suitable agent's house in connection with an office, material house, &c., has been built, and we have a smith's shop of the required size, also a powder magazine has been built, so that for some time we do not expect any extra expenditure beyond that necessary for sinking and opening out the mine, and this, with such a powerful supply of water at command, will be inexpensively carried out. On reviewing the work of the past year, we consider the result has been satisfactory, and are fully satisfied the present prospects justify our recommending that the different points referred to be prosecuted with vigour.—W. GEORGE, R. KNOTT.

The CHAIRMAN expressed his regret that out of a list of 73 shareholders so few attended the meeting. Most of the shareholders, however, reside in the country, and unless there was some special point to discuss they could not be expected to come to the meetings.

With regard to the accounts it would not be necessary to make many remarks on them, as they were made as plain as possible. If any questions were asked with regard to them the information would readily be given. He thought it would be seen that the London charges would contrast very favourably with a good many other companies, and that altogether their affairs were being conducted economically. He would call particular attention to the item of wages paid to labour at the mine, amounting to 1236*l.* 8*s.* 8*d.*, and also to the item of machinery and materials, 410*l.* 3*s.* 5*d.*, which, as would be seen, was a very great part of the money expended. The directors' fees for fifteen months were 93*l.* 15*s.* It would, therefore, be seen that the directors had been very reasonable in this instance, inasmuch as the Articles allowed them to take as much as 150*l.* a year. The commission on the shares was also very small, 75*l.* being the whole amount paid under this head for placing the shares of the company. With regard to the working of the mine, the report gave them, without any glow or colour, a simple account of what has been done, and of them the future prospects of the undertaking.

He thought the management deserved great credit for this, considering the short time in which operations had been carried on. Their prospects were excellent. They had accidentally discovered a very rich tin lode while engaged in cutting the drain to drain the water from the water-wheel and stamps, and this discovery had involved a further outlay in the shape of pumping machinery. They had already sunk a shaft upon it, and ascertained that the lode was really valuable, and with a few fathoms more sinking they would probably land in a very rich bunch of tin. From the accounts it would be seen that they had a balance of 862*l.* at call and at the bank; but he might add that in consequence of the extra expenditure for pumping machinery, which had not been

anticipated until the discovery of the new lode, the directors thought it advisable to issue another thousand shares. Those shares had been taken up, and, therefore, it might be considered that they had an additional 1000. to the balance which appeared in the accounts; therefore, on the head of finance they need not trouble themselves. Their costs were extremely light in consequence of the fact that the mine was worked entirely by water-power, and there was no coal or heavy cartage necessary to keep the mine at work. They, therefore, had their future expenditure well in hand, and in addition they would be returning in from time to time, and everything would be done by the agents at the mine to further the interests of the shareholders. He might say that he and his co-director, Mr. Sims, paid frequent visits to the mine, and on every occasion they had found everything going on in a most minierlike manner, and that every endeavour was being used by the agents to bring the mine to a successful issue. The Chairman then moved the adoption of the report and accounts.

Mr. Sims seconded the motion, which was carried *unanimously*.

Mr. Wood was re-appointed auditor, and the meeting then closed.

#### WEST LISBURN MINING COMPANY.

The first ordinary general meeting of shareholders was held at the offices of the company, Great Winchester-street, on Tuesday.

Mr. C. C. MARVIN in the chair.

Mr. WILLIAM BATTYE (the secretary) read the notice convening the meeting, and the directors' report.

The CHAIRMAN said when he had the pleasure of meeting them last he then made a statement as to the progress of the works. From the report now presented it would be seen that after the erection of the engine various defects were made apparent necessitating a complete overhaul of the same. This was effected, and various improvements were made, such as the fixing of an injector for economising the consumption of coal. Acting under the advice of various competent parties, it was decided to put the London shaft into repair, so as to utilise the reserves of ore ground. This had been accomplished, and the shaft had been re-limbered. The new perpendicular shaft had been also put in thorough repair and re-limbered throughout by the present company. The new wheel was started in his presence and worked admirably. There was a reservoir above the wheel which he had ordered to be enlarged for the surplus water, which could be used for dressing. The water from the wheel could be dammed up and a plunger put in to be utilised for dressing, so as to obtain a greater force of water. The connection of iron rods from the pumping wheel to the shaft is about 443 fms., or half a mile. There was a large quantity of iron rods on the mine in short lengths. These had now been welded together and put into lengths of 60 ft., so as to give greater strength. The line for the rods had been pegged out to the new wheel, and they would shortly commence to fix the same. The dead work was in a great measure done, and they had a crusher on the ground. The expenses up to April 27 had been 3,634. 1s. 10d., from which 1255. 4s. had gone for additional permanent and valuable machinery, such as a 25-horsepower steam-engine, equal to 30 with boiler, water-wheel, &c.

Mr. ROBINSON said he thought the engine was perfect when it was put up. The CHAIRMAN replied that the board thought the same, but they would all ways find in every business that defects would now and then crop up, and this engine turned out to be defective in the piston, &c.

Mr. TOMES remarked that the engine was put up and pulled down, and was put up again.

The CHAIRMAN continued that the shareholders would observe on the table specimens from the lode, and he would say that engineers and people who knew the mine agreed that there was no better property to be found than this. The manager stated that so soon as the present machinery was completed he could at will commence making returns of ore, as a valuable section of ground had been laid open. He would add that the ore was rich in silver.

Mr. ROBINSON asked what additional outlay had been involved in the repair of the engine?—The CHAIRMAN said they had put an injector to economise fuel, and the cost was for 50. The engine had cost 300. with the boiler and crusher on the ground, and it would come in very valuable for driving rock-drills, and if there was drought it could assist the water-power. He then moved the adoption of the report and accounts.—Mr. S. J. HOBSON seconded the resolution.

Mr. TOMES said there had only been 3094 shares taken up out of 20,000, and there were then 5096 which had not been applied for. These 3094 shares had, therefore, to bear all the expense.

The CHAIRMAN replied that Mr. TOMES knew all the facts of the case at the date of the last meeting, at which he proposed a vote of thanks to the directors. He would find that 14,000. had been expended on the mine before, and he was now grumbling at the 10,000 shares having been given for this valuable property. The manager would tell them that only 500. was required to complete the machinery, and to return ore to the market, and he (the Chairman) might say additional shares had been applied for.

The MANAGER (Capt. W. Northey) said that was quite correct.

The CHAIRMAN continued, that the only thing the company would require was that the shareholders should pay their calls, for if that had been done the machinery would have been up by this time.

The resolution was then put to the meeting and carried.

Mr. E. H. WILLIAMS and Major Robert Heane were elected directors. Mr. Ripley was re-appointed as auditor, and a vote of thanks to the Chairman and directors closed the proceedings.

#### EBBW VALE STEEL, IRON, AND COAL COMPANY.

The annual general meeting of shareholders was held at Manchester, on Wednesday.—Mr. EDWARD COWARD in the chair.

The usual preliminaries having been disposed of, the report and balance-sheet were submitted.

The CHAIRMAN congratulated the meeting upon the directors being able to present a more satisfactory statement than for some time past, and in some respects more favourable than at any period since he had been connected with the company. Notwithstanding the state of the coal trade, the costs or their extensions, the advances in wages, the keen competition in the steel trade, and the dying out of the iron trade, the directors were able to show a net profit of 27,000. against 12,000. last year. Although this was a small sum for so extensive a property it ought to be looked upon as an indication that trade revived the directors would be able to show that there was vitality in the concern. The amount standing now at the credit of the profit and loss account was 73,610. and the board had to consider whether they were justified in paying any dividend at all, considering that they were still under obligation to the bank, and had 30,000. of bonds deposited with them. Though the bank was the proper place to go to for an occasional advance, it was not one from which to have constant advances of working capital. It was, therefore, hoped the shareholders would help the directors by taking up this 30,000. in bonds. As to the dividend of 5s. per share, the directors of this company would much rather have kept the cash in their box, in doing which they would have had the sanction of some of the largest shareholders; but on the other hand they had to consider the interests of the small shareholders, to whom a dividend, however limited, was acceptable. After considerable consideration the directors came to the conclusion to recommend a dividend of 5s. The directors, though they had power to issue more debentures at 6 per cent., did not intend to use that power, feeling now that the company had got into a position when it ought not to pay 6 per cent. for money, but ought to look forward to getting money at less than 5 per cent. (Applause.) An idea had been struck at, though it had not been brought into form, to issue in some form preference debenture stock, giving that stock the same security as the debentures, and gradually extinguishing the mortgage debentures. The Chairman formally moved the adoption of the report, with its recommendation of a 5s. per share dividend, and carrying forward 21,171. Mr. W. BUNN, deputy chairman, seconded the motion.

Mr. WILLIAM ABBOTT (London) proposed an amendment to the effect that the report and statement of accounts be received, but not now adopted, and that a committee of three shareholders be appointed to confer with the directors as to the rearrangement of the capital of the company, and report to a future meeting, and that the meeting be adjourned to receive and decide upon the report of the committee, and do the other business remaining to be disposed of at that meeting.—Mr. H. HAYES (Manchester) seconded the amendment.

Mr. BUNN, in moving the amendment, said he was not in favour of the proposal, and referring more particularly to the question of dividend, he said he would be very glad to have 10s., which he could honestly say they had earned; but if they paid 5s. more than the directors recommended they would have to borrow every shilling of it. The committee had set their faces against this borrowing—(hear, hear)—and if they went on borrowing they must inevitably cripple the concern of its resources, and militate against the future prosperity of the company. The company did not want any new scheme at present. The directors had inherited a bad system, they had worked hard under it, and he hoped the shareholders would express their confidence in them. (Hear, hear.)

After considerable discussion, the CHAIRMAN put the first part of the amendment to the meeting, when 13 voted for it and a large majority against it. It was not considered necessary to put the other parts of the amendment.—The report was adopted.—Mr. Phillips and Mr. Totill were re-appointed directors, the shareholders' committee was re-elected, and the auditors (Messrs. Cooper Brothers and Co.) were also re-elected.

#### THE FAURE ELECTRIC ACCUMULATOR COMPANY.

A special meeting of shareholders was held on Thursday at the Cannon-street Terminus Hotel, for the purpose of receiving a statement from the board of directors and considering the future policy of the company.—Sir A. J. OTWAY, M.P., occupied the chair.

The CHAIRMAN, in opening the proceedings, said the board had the right and power under the Articles of Association to conclude any arrangement they thought beneficial to the company. Still, the proposition that would be made known to them was of so important a character that they thought it due to the shareholders to take their opinion upon it. This company had the patents for Faure's accumulator for the United Kingdom, and the Electric Storage Company had acquired Faure's patents for the whole of the rest of the world. Overtures were soon made to them to come to some understanding with that company, and after a long and difficult negotiation, an agreement had been come to, which now only required the sanction of the two companies to make it definite. He might almost call it an alliance offensive and defensive. By that agreement this company reserved to itself everything connected with railways, either propulsion or lighting their stations, their carriages, and their reservoirs. They had also reserved to themselves everything connected with ships, whether at sea, in rivers, or in harbour, and last, but not least, they had secured to this company the use of the accumulator for machinery for all purposes. The Storage Company had acquired from them the use of the Faure accumulator for the lighting of houses and towns. The Storage Company was to give to this company 5000 shares, and this

company was to give to the Storage Company 20,000 shares on a further emission of shares to be created for that purpose, and this company was to participate in proportion to its shares in the Storage Company in all the profits it had made to the present time.

Mr. WISEMAN, the solicitor of the company, then read the heads of the agreement between the two companies, and on the motion of Mr. EDGAR GREEN, seconded by Mr. W. MORRIS, a motion was put and carried that the agreement be confirmed.

The CHAIRMAN said the company had made arrangements for the lighting of a portion of Ireland—in Ulster—which was not affected by the agreement.

A vote of thanks was then given to the Chairman, and the meeting separated.

#### THE ELECTRIC LIGHT AND POWER GENERATOR COMPANY.

The ordinary general meeting of shareholders was held on Tuesday at the City Terminus Hotel.

Admiral Sir E. A. INGLEDEN, C.B., in the chair.

The CHAIRMAN, in moving the adoption of the report, referred to the great difficulties against which the company had had to contend at the outset of their working, and afterwards alluded to their acquisition of the Maxim incandescent lamp. The price asked for it at first was 100,000. but after the negotiations which went on they succeeded in obtaining it for 54,500. of which 32,000. was paid in cash and the rest in shares of the company. They then found themselves possessed of a very excellent incandescent lamp, and also the Weston arc lamp. They had tested that lamp with the Lontin arc lamp, with the result that they had decided that it was more suitable for putting up in the City. Their lighting in the City was, he held, satisfactory, and it was now being worked remuneratively to the company. They had not lost sight of the advantage which would accrue to them by the sale of concessions for the use of their patents in the United Kingdom and elsewhere, and negotiations were now in progress by which he believed the company might be expected in a short time to let 60,000. from this source. Owing to severe competition—there were now 54 electric-lighting companies, this company having been sixth in the field—they had had great difficulty in obtaining remunerative work, a bonus being required in many instances by those who had the power to give contracts. After referring to the circumstances in which Mr. W. Crookes, the consulting electrician of the company, had disposed of his invention of an incandescent lamp to another company, the board of which he had also joined, he stated that their Maxim lamp had been frequently used at banquets and that it bore such a good name in the market that certain other companies had arranged with them for its use on very favourable terms. They were now negotiating for selling a concession for Australia, and another for the North of England; and they also had negotiations pending in connection with other valuable contracts.

Sir H. BRUCE SANFORD, in seconding the motion, referred to the action taken at the instance of the company by other similar companies and themselves in Parliament, and to the course taken by the Board of Trade, and expressed a hope that the companies would get the bill they applied for passed in July.

Mr. CROOKES afterwards addressed the meeting, and explained the circumstances which led to the disposal of his incandescent lamp to another company. He had adhered all along to his offer to the company, which he contended was a modest one, but it had, he said, been proposed to put his lamp to a test which he knew to be impossible in the circumstances which existed. He took a warm interest in this company, however, and was glad to hear from the Chairman that it had such good prospects.

The CHAIRMAN, in reply to a suggestion of Mr. WILLIAM ABBOTT, stated that they now intended to devote their energies to the promotion of domestic lighting and the use of their patents by firms, &c. He afterwards alluded to negotiations now pending for the sale of their Lontin and Lontin systems.

The report was unanimously adopted, and the retiring directors and auditor were afterwards re-elected.

An extraordinary general meeting held subsequently a resolution was passed to change the name of the company to that of the Maxim-Weston Electric Company (Limited).

The CHAIRMAN explained that the alteration was necessary owing to the great number of electric-light companies now existing, and to the difficulty, with their present name, of it being known generally to whom the company's patents belonged. The alteration would, however, remove that difficulty.

[For remainder of Meetings see this day's Journal.]

#### PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. S. J. DAVEY, mine shareholder, Redruth (June 29), writes:—Our market after being dull and depressed most of the week improved for the leading shares, but there is not much business doing to-day. Dolcoath closes at an advance of 1½, Cook's Kitchen 1½, East Pool 1, West Peavor ½, and Wheal Agar 1. Smelters advanced 1½ standards 2s. to-day. Subjoined are the closing quotations:—Blue Hills, 1½ to 1½; Carn Brea, 12½ to 12½; Cook's Kitchen, 39½ to 40½; Dolcoath, 69½ to 70; East Blue Hills, 10s. to 15s.; East Lovell, 1½ to 1½; East Pool, 54½ to 54½; Killfret, 5s. 12s. to 6s. 12s.; Killfret, 4½ to 4½; New Corn Kitchen, 6s. 12s. to 6s. 12s.; North Bury, 3½ to 3½; Penryn, 2½ to 2½; Penryn-dred, 3½ to 3½; South Condurrow, 8½ to 8½; South Crofty, 10½ to 11½; South Frances, 12 to 12½; Tincroft, 12½ to 13; West Basset, 10 to 10½; West Frances, 9½ to 10; West Kitty, 9½ to 9½; West Peavor, 12 to 13; West Peavore, 12 to 12½; West Tols, 12 to 12½; West Tols, 12 to 12½; West Tols, 12 to 12½; Wheal Agar, 15 to 15½; Wheal Basset, 10½ to 10½; Wheal Condor, 1½ to 1½; Wheal Grenville, 10½ to 10½; Wheal Peavor, 9½ to 10; Wheal Uny, 1 to 1½; Wheal Uny, 3 to 3½.

—Messrs. ABBOTT and WICKETT, stock and share brokers, Redruth (June 29), write:—The recent improvement in the condition of the tin market has caused a fair demand for shares. East Pools, Wheal Agars, Cook's Kitchens, and Killfret have attracted attention. Subjoined are the closing quotations:—Blue Hills, 1½ to 1½; Carn Brea, 12½ to 12½; Cook's Kitchen, 39½ to 40½; Dolcoath, 69½ to 70; East Pool, 54½ to 54½; Killfret, 5s. 12s. to 6s. 12s.; Killfret, 4½ to 4½; New Corn Kitchen, 6s. 12s. to 6s. 12s.; North Bury, 3½ to 3½; Penryn, 2½ to 2½; Penryn-dred, 3½ to 3½; South Condurrow, 8½ to 8½; South Crofty, 10½ to 11½; South Frances, 12 to 12½; Tincroft, 12½ to 13; West Basset, 10 to 10½; West Frances, 9½ to 10; West Kitty, 9½ to 9½; West Peavor, 12 to 13; West Peavore, 12 to 12½; West Tols, 12 to 12½; West Tols, 12 to 12½; West Tols, 12 to 12½; Wheal Agar, 15 to 15½; Wheal Basset, 10½ to 10½; Wheal Condor, 1½ to 1½; Wheal Grenville, 10½ to 10½; Wheal Peavor, 9½ to 10; Wheal Uny, 1 to 1½; Wheal Uny, 3 to 3½.

—Mr. M. W. BAWDEN, Liskeard (June 29), writes:—The mining market is a shade firmer, buyers of most stock for forward delivery at improved prices with the probability of a steady advance on tin stocks being further increased. Subjoined are the closing quotations:—Bedford United, 1½ to 1½; Carn Brea, 12½ to 12½; Cook's Kitchen, 39½ to 40½; Dolcoath, 69½ to 70; Devon Consols, 6½ to 6½; Devon Great United, ¾ to ¾; East Caradon, ¾ to ¾; East Pool, 54½ to 54½; Gawn United, ¾ to ¾; Glasgow Caradon, ¾ to ¾; Gunnislake (Clitters), 2½ to 2½; Herodfoot, 1s. to 1s. 6d.; Hington Down, ¾ to ¾; Killfret, 5s. 12s. to 6s. 12s.; Marko Valley, ¾ to ¾; New West Caradon, ¾ to ¾; North Herodfoot, ¾ to ¾; Old Gunnislake, ¾ to ¾; Phoenix United, 2½ to 3; Prince of Wales, ¾ to ¾; South Caradon, 14½ to 15; South Condurrow, 8½ to 8½; South Crofty, 10½ to 11½; South Frances, 12 to 12½; Tincroft, 12½ to 13; West Basset, 10 to 10½; West Frances, 9½ to 10; West Kitty, 9½ to 9½; West Peavor, 12 to 13; West Peavore, 12 to 12½; West Tols, 12 to 12½; West Tols, 12 to 12½; Wheal Agar, 15 to 15½; Wheal Basset, 10½ to 10½; Wheal Condor, 1½ to 1½; Wheal Grenville, 10½ to 10½; Wheal Peavor, 9½ to 10; Wheal Uny, 1 to 1½; Wheal Uny, 3 to 3½.

—Mr. JOHN CARTER, mine shareholder, Camborne (June 29), writes:—Prices during the week have improved generally in sympathy with the rise in tin, and to-day the tin standards are advanced 2s. At the close of the market there is, however, a weaker tendency on a disposition being plainly shown to realise recent purchases. Closing quotations are annexed:—Carn Brea, 12½ to 12½; Cook's Kitchen, 39½ to 40½; Dolcoath, 69½ to 70; East Blue Hills, 10s. to 15s.; East Lovell, 1½ to 1½; East Pool, 54½ to 54½; Killfret, 5s. 12s. to 6s. 12s.; Killfret, 4½ to 4½; New Corn Kitchen, 6s. 12s. to 6s. 12s.; North Bury, 3½ to 3½; Penryn, 2½ to 2½; Penryn-dred, 3½ to 3½; South Condurrow, 8½ to 8½; South Crofty, 10½ to 11½; South Frances, 12 to 12½; Tincroft, 12½ to 13; West Basset, 10 to 10½; West Frances, 9½ to 10; West Kitty, 9½ to 9½; West Peavor, 12 to 13; West Peavore, 12 to 12½; West Tols, 12 to 12½; West Tols, 12 to 12½; Wheal Agar, 15 to 15½; Wheal Basset, 10½ to 10½; Wheal Condor, 1½ to 1½; Wheal Grenville, 10½ to 10½; Wheal Peavor, 9½ to 10; Wheal Uny, 1 to 1½; Wheal Uny, 3 to 3½.

MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, share-brokers, Queen's Chambers, Market-street (June 29), write:—During the past week attention has been mainly directed to speculative securities, which, influenced by every rumour from Egypt, have accorded many fluctuations with however a persistent downward movement arrested a few times, but too strong to be effectually stopped. Another influence tending to depress markets is the fear of difficulties developing at the settlement, and in view of these, despite very fair announcements as to earnings, many investment stocks have suffered along with the more tickle securities, though not generally to the same extent. The settlement to-day has, however, disclosed nothing alarming. The prominent channels of operations having absorbed so much attention has caused a dearth of business in the other classes of shares reported upon. These show comparatively very few transactions, and excepting in bank shares the balance both of prices realised on dealings and on changes of quotations show a little general weakness in values. Banks, though producing few sales, keep firm; prices, where lots have changed hands, being fully up to best lately marked. The quotations showing change are few, and for the local concerns no instance of decline is to be noted. Higher—Lancashire and Yorkshire, ¾; Manchester and Salford Bank, ¾. Lower—National Provincial of England, ¾. The National Provincial new have been put down during the week, but now quote same as a week since.

Insurance shares still show a balance of unfavourable changes in quotations, but the declines are not so severe as some we have had to note recently. The business done is almost entirely confined to Lancashire, which have been done repeatedly at slight fluctuations, the last price obtained being 6½, the lowest of the week, and at which price they were also done on Saturday last. Some few quotations have been revised without distinct quotable change. Manchester Fire sellers' price was put down ¼, following which buyers' figure rose ¼, and some little business was done in between these prices; since then, however, buyers figure has been again put to ¾, same as last week. In Positive Life sellers predominate at figures quoted, price is 7s. to 7s. 3d., but a few lots are offered at 7s. National Bankers, in sympathy, doubtless, with rest of the market, are ¼ lower in buyers' figure, sellers remaining unchanged. Higher—Reliance

Marine ¾. Lower: Liverpool and London and Globe ¾, Boiler Insurance and Steam-Power ¾.

COAL, IRON, &c., AND MINING.—Numerically the movements in quotation show an adverse majority, but here also the changes are not near so decided as some we have had to notice during the past few weeks. Very little business has passed herein, a few lots of Ebbw Vale comprising nearly the whole of the aggregate of transactions. Ebbw had a hardening tendency up to yesterday, when they touched 9½, but they have receded to-day, and now show a fall as compared with last week's prices. The meeting of this company held here yesterday confirmed the directors' report recommending the 5s. dividend, and re-elected the appointment of a small committee to consider a scheme for remanagement of capital. Bolckows are neglected, and the 12½ paid are easier. John Browns, now ex div., are reckoning dividend off little higher. Higher: Indian Glenbrook Gold, ¾; Indian Phoenix Gold, ¾; Lower: Tharrie Sulphur, &c., ¾; A. Knowles and Sons, ¾; Bolckows, 12½ paid, ¾; Cammells, ¾; Nauty-Glo and Blains Pref., ¾; United States Rolling Stock, ¾; Rio Tinto, ¾; Ebbw Vale Steel and Iron, ¾, and Canadian Copper, 6d.

COTTON SPINNING AND MANUFACTURING.—Market very inanimate, only a few of the foremost concerns showing any activity. Operators seem determined to wait the results to be published at the end of this month prior to doing fresh business to any extent.

TELEGRAMS are weaker all round. The instance in which the most distinct decline is noticeable is, however, Anglo Preferred, which mark 1½ down, the Ordinary and Deferred issues being only ¼ lower. Easterns are ¾, and Direct, Globe Ordinary, Brazil, and West India and Panama each ¾ down. TELEPHONES, very little doing. Lancashire and Cheshire are 1s. Oriental 1s. 6d., and United ¾ lower.—CORPORATION STOCKS, &c., show no diminution in values; on the contrary, further rise is to be noted in Leeds stock of ¾, and in Bradford stock of ¾.—MISCELLANEOUS do not present many features of importance. Very few dealings are reported, but where quotations are altered the change is favourable. Barlow and Jones are strong, Ryland and Sons ¾ higher. Hudson Bay (now quoted ex the dividend and the return of 2½ of capital), with one solitary transaction, are not quotably altered.—RAILWAYS.—Since our last report the market, on several occasions, has been in a state of semi-panic, caused by the political news regarding Egypt, and prices generally show severe reduction. Brighton, A's, are foremost in the decline, being subjected, as denoted by continuation rates, to heavy "bear" operations. South Eastern, A's, too, are distinctly lower. Some of the heavy lines have suffered by closing of "bull" accounts; particularly is this the case with Great Western. The news to-day is, however, considered, to some extent, tranquillising, and a good rally is the result. Canadians have been banged about, and though at the Trunk meeting to-day the fusion was almost unanimously sanctioned after a momentary sharp rise, the feeling is uneasy. Americans, on the whole, are firmer, and show a steady appearance.

#### SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, sharebroker and ironbroker (June 28), writes:—During the past week business has been quiet, owing to the unsettled state of affairs in Egypt. The money market, however, remains easy, the weather favourable for agricultural prospects, and trade reports are rather encouraging, which will all help to bring about a rise in prices, provided political matters were satisfactorily disposed of.

In shares of coal, iron, and steel companies the principal alteration is an advance of 10s. per share on steel, at 6½, but Marcellas are easier at 6½ to 6½. In the Scotch pig-iron market the price of warrants improved from 45s. 3d. to 49s. 8d., but is now easier, owing to the political advice. Shipments are, however, good, makers prices advancing and trade generally brisk, so that a renewal of business is quite likely. Alltams are at 25s.; Chatterley Iron, 6½ to 7; and Chapel House 10s. to 15s.

In shares of foreign copper concerns there has not been much business doing. The meeting of the Cape Company will be on July 12. Tharrie has declined from 40½ to 39½; Huntington are also lower at 39s.; Norway Copper, 7s. 6d. to 12s. 6d.; York Peninsula, 4s. to 6s.; and ditto (pref.), 20s. to 22s. 6d. In shares of home mines there is no particular alteration to notice. The sale of the Glasgow Caradon Company, on June 22, of 140 tons realised 843. 10s., or an average of 120s. 6d. per ton, and is about their best sale during the last 10 years. In April they sold 130 tons at 77s. 2d., and in July, 1881, 200 tons at 66s. 11d., while their sales in the month of June in previous years were generally 160 to 260 tons, and at prices ranging from 64s. 10d. to 115s. 8d. In the current year their sales to date have been 430 tons, realising 1984. 10s., as compared with 590 tons for 2123. up to July, 1881. Bell Vein are at 15s. to 20s.; Carpell, 2s. 6d.; Caron, 1s. 6d.; Drakevale, 7s. 6d. to 12s. 6d.; East Wheel Rose, 5s. to 6s. 6d.; East Caradon, 2s. 6d. to 5s.; East Caradon Moor, 5s. to 7s. 6d.; East Roman Gravel, 7s. 6d. to 10s.; Grogynnon, 5s. to 15s.; Great Holway, 60s. to 90s.; Gover Consols, 5s. to 7s. 6d.; Herodfoot, 7½d.; Indian Queen, 3s. 6d.; Mellanear, 4½ to 5½; New West Caradon, 2s. 6d. to 5s.; New Penrose, 2s. 6d.; New Terras, 42s. 6d.; Old Shepherds, 5s. to 7s.; Pelyn Wood, 3s.; Parks, 3s. 6d.; Pennant, 52s. 6d.; Panty-Mwyn, 5s. to 7s. 6d.; South Devon United, 15s. to 20s.; South Crebor, 5s. to 7s. 6d.; Tamar, 5s. to 7s. 6d.; Walkham United, 5s. to 10s.; West Chiverton, 24s. dis.; Wheel Comfort, 40s. to 60s.; and Wheel Owles, 6 to 8.

In shares of gold and silver mines Richmonds are the turn better at 8½ to 8½, but others are generally easier. Callao 10s. to 12s. 6d.; Flagstaff, 5s. to 7s.; Gold Coast, 17s. 6d. to 22s. 6d.; Hoover Hill, 4s. to 5s.; Indian Wentworth, 11s. 3d. to 13s. 9d.; Indian Kingston, 5s. to 7s. 6d.; Indian Consolidated, 16s. 3d. to 18s. 9d.; Indian Trevelyan, 13s. 9d. to 15s.; Isabell, 7s. 6d. to 10s.; Kapangas, 13s. 9d. to 15s.; Mysore Reef, 2s. 6d. to 5s.; New Callao, 10s. to 15s.; New Gold Run, 4s. 6d. to 10s.; ditto (pref.), 5s.; Organos, 35s. to 45s.; Quartz Hill, 1s. to 2s.; Rio Grande do Sul, 1s. to 20s.; Silver Peak, 3s. to 5s.; Simon's Reef, 2s. 6d.; and Tolima, A, 1 to 5.

In shares of oil and miscellaneous companies prices are generally lower. Glasgow Coal Exchange are at 18s.; Lawe's Chemical, 5½ to 6; and Midlothian Oil, 10s. to 5s. dis.

EDINBURGH.—Messrs. THOMAS MILLER and SONS, stock and share brokers, Princes-street (June 28), write:—The markets have been very weak during the past week. Caledonian Railway Stock has receded from 106½ to 104½; North British from 95½ to 93½; Highland from 103½ to 103½. There has been a general fall in English railway stocks, the greatest being in Brighton Deferred, which has receded from 135½ to 128½. Preference and debenture stocks have been steady. Canadian and American have nearly all declined from ¾ to 1½ per cent. Bank stocks have in demand. Bank of Scotland has advanced from 297½ to 302; Bank of Linen from 293 cum to 290 ex div. of 7½ 10s.; National from 308 cum to 299 ex div. of 7½ 10s.; Union has receded from 24½ to 24½. In insurance shares, Standard Life have improved from 50 to 53½; North British Mercantile from 57½ to 58; Scottish Accident from 28s. to 27s. 6d. Colonial and American investment shares have been in fair demand. Prairie Cattle Old shares have declined from 14½ to 14; and the New from 14½ to 14.

#### IRISH MINING AND MISCELLANEOUS COMPANIES SHARE MARKET.

CORK.—Messrs. J. H. CARROLL and SONS, stock and share brokers, South Mall (June 28) write:—Markets were again dull to-day, and Great Southern changed hands at 112½ to 113. Midland were also done at 83½, and Bandons offered at 80; and Macraos at 6½. National Banks changed hands at 23½, and Munster at 7. Iberians were also done at 31½. No change in Provincials. Cork Steam Packets were again done at 10½, and Lyon shares at 5½. Gas shares were offered at 6½, and Dalys were asked for at 2½. No change in Breweries, but Gouldings were done at 8½ per share.

BODMIN MINING DISTRICT.—The invariable experience of Cornish miners is that the richest mineral deposits are always found at or near the junction of the granite and killas, and in case of mines located in that position a fair return for judicious outlay is usually obtained. It will be seen from an advertisement in another column that a freehold property so situated is now in the market—the Tregullon and Trebell estates—the extent of 73 acres being ample for all practical purposes, and the value of the position for mining purposes having been partially proved by the raising of 50,000. worth of copper from it, whilst the tin and iron will probably prove not less valuable.

COST OF THE ELECTRIC LIGHT.—In reply to enquiries, we have been favoured by Messrs. Samuel Brothers, of Ludgate Hill, with some details respecting the electric light as employed upon their establishment. The dynamo machine is worked by an Otto gas engine of 12-horse power, which is, however, far in excess of what is required for the existing lights, and will be amply sufficient for a number of incandescent lamps which are about to be fitted up in the counting-house, private office, and fitting rooms. The engine and lamps require no skilled superintendence, and are attended to by the head porter. There are altogether 20 Jablochkoff arc lights, five of which are in the front, and the remainder are employed to light up 4000 square feet of space inside. Each lamp has an illuminating power of 378 candles, equal to 35 ordinary gas burners; as verified by the scientific staff of the Metropolitan Board of Works. The Jablochkoff candles cost for each lamp 1d. per hour, and the gas consumed by the Otto engine costs also 1d. per lamp per hour. The total expense per annum is 150£, the lighting of the premises averaging three hours each night.—Warehousesmen and Drapers' Trade Journal.

ENGINEERING IN AMERICA.—Mr. Drummond, British Secretary of Legation at Washington, states that the manufacture of locomotives is now in an extremely flourishing condition. All the works in the country are overcrowded with orders, and are able to make their own terms. Prices are nearly 100 per cent. higher than they were three or four years ago, the ordinary eight-wheeled passenger engines, which then sold for 1458£, now bringing about 2812£.

COAL IN SCOTLAND.—The collieries of the Gartness Mineral Company (Limited) in liquidation were offered on Wednesday in the Faculty Hall, Glasgow, at the upset price of 10,000., but there were no offers.

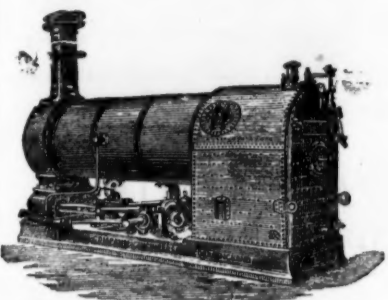
# HIGHEST AWARD MELBOURNE EXHIBITION, 1881. ROBEY & CO., ENGINEERS, LINCOLN.

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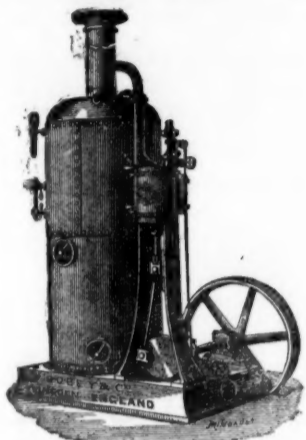
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Is complete in itself, ready for putting down and setting to work immediately, either as a permanent or temporary Winding or Pumping Engine.



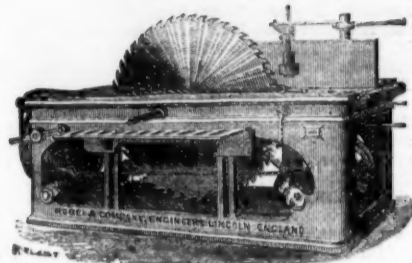
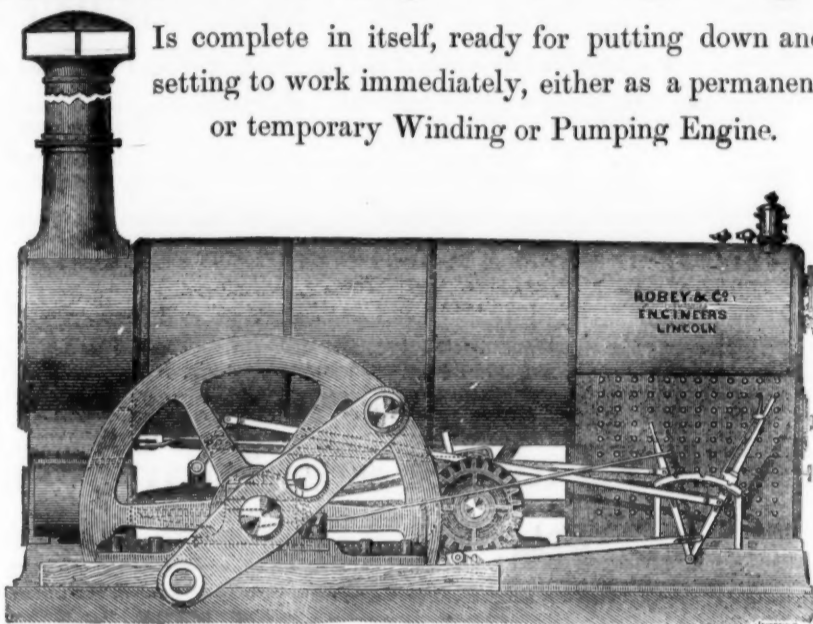
THE PATENT ROBEY FIXED ENGINE AND LOCOMOTIVE BOILER COMBINED 4 to 50-horse power.



VERTICAL STATIONARY STEAM ENGINE AND PATENT BOILER COMBINED, 1½ to 16 horse power.



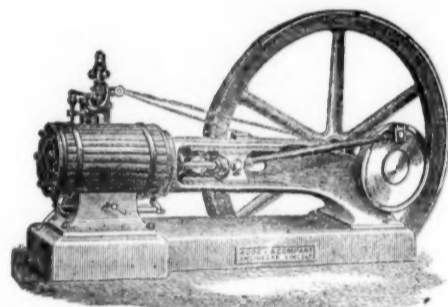
SUPERIOR PORTABLE ENGINES, 4 to 50-horse power.



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ROBEY & CO. LINCOLN, ENGLAND.  
IMPROVED BARROW LIFT, OR VERTICAL HOISTING ENGINE.



HORIZONTAL FIXED ENGINES, 4 to 50-horse power.

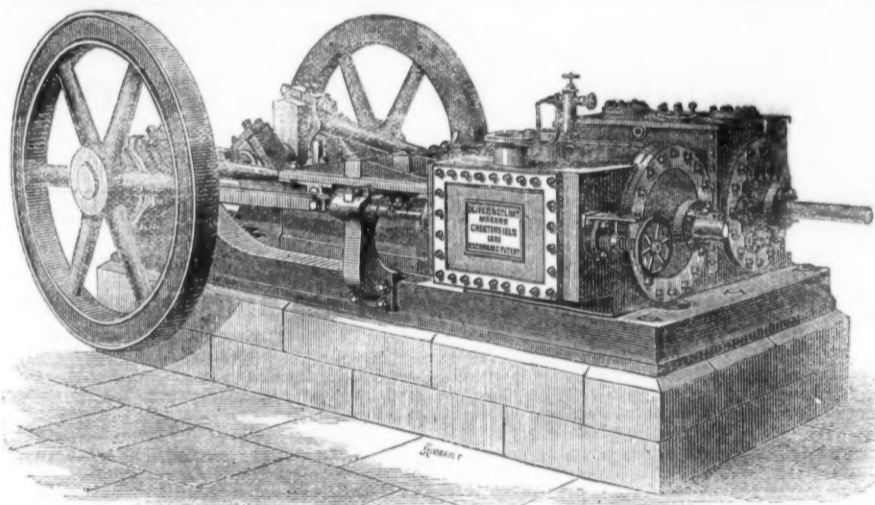
ALL SIZES KEPT IN STOCK, FROM 6 TO 50-H.P. NOMINAL.

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### Registration of New Companies.

The following joint-stock companies have been duly registered:—  
**CAMBRIDGE UNIVERSITY AND TOWN SUPPLY STORES (Limited).**—Capital 60,000*l.*, in shares of 1*l.*. A co-operative business in all branches. The subscribers (who take one share each) are—A. C. Swan, Cambridge; H. F. White, Cambridge; G. W. Holden, Bristol; W. Baker, Cambridge; F. Burwick, Cambridge; W. E. Archer, Cambridge; W. Drake, Cambridge; L. E. Parker, Cambridge; W. Wols-ton, Cambridge; H. Seddiwell, Cambridge.  
**THOMPSON'S SMOKELESS KILN AND OVEN COMPANY (Limited).**—Capital 100,000*l.*, in shares of 5*l.*. To construct, acquire, and use gas kilns and furnaces in connection with certain patents. The subscribers (who take one share each) are—R. L. Holland, 4, The Sanctuary; W. A. Cromelin, Putney; H. D. Pilcher, Morgan's-lane; R. A. Gibson, Croydon; J. D. D. Bush, 12, Ryder-street; J. W. O'Neill, Woodberry; J. Lees, Reigate.  
**RICHARD JOHNSON AND COMPANY (Limited).**—Capital 10,000*l.*, in shares of 10*l.*. To purchase the goodwill, &c., and carry on a business of coal merchant, also that of colliery proprietors, wagon builders and repairers, &c., established at 11, Dale-street, Liverpool. The subscribers (who take one share each) are—R. C. Johnson, Liverpool; H. G. Foster, St. Helen's; W. W. Tapscott, Liverpool; G. H. Ball, New Brighton; W. M. Lightfoot, Chester; J. H. Johnson, Liverpool; J. H. Cryer, Liverpool.  
**STOURBRIDGE POTTERY WORKS (Limited).**—Capital 10,000*l.*, in

shares of 1*l.*. To acquire the lease and carry on the business of the works known as the "Delph Pottery," nearly Brierly Hill, Stafford. The subscribers (who take one share each) are—W. Macmillan, Brierly Hill; R. Delatorre, 7, Southampton Buildings; G. A. Williams, 88, Bishopsgate-street Within; F. G. Venner, 115, Westminster Bridge-road; H. R. Williams, Brixton; H. Randall, 7, Southampton Buildings; C. Allbury, Stockwell.  
**THE COLONIAL AND EASTERN AGENCY (Limited).**—Capital 50,000*l.*, in shares of 10*l.*. To act as agents between manufacturers and importers. The subscribers are—H. P. Baxter, Southall, 200; C. J. Boyce, Hounslow, 200; G. R. Craven, Eccles, 50; R. W. Baxter, Southall, 200; S. Holloway, Hounslow, 1; G. Spence, Barnes, 10; H. Baxter, Shoreditch, 10.  
**THE GENERAL HANOVERIAN COMPANY (Limited).**—Capital 60,000*l.*, in shares of 1*l.*. Business of hotel and tavern proprietors, mineral water manufacturers, miners, smelters, engineers, steel converters, iron founders, distillers, &c. The subscribers (who take one share each) are—J. S. F. Cowell, 8, New Broad-street; P. W. Freeland, 115, Cannon-street; D. A. Onslow, 14, Waverley-place; W. S. Lambert, 109, Peckham Park-road; J. D. Massey, Wood Vale; C. R. Bennett, 8, Brunswick-square; T. Preece, Woodberry.  
**THE CITY OF LONDON HOUSE OWNERS' CORPORATION (Limited).**—Capital 250,000*l.*, in shares of 5*l.*. To acquire let, and manage lands, houses, shops, offices, &c. The subscribers (who take four shares each) are—C. R. Crossley, 38, Poultry; C. A. Harris, 3, King-street, T. Sharp, 21, Cromwell Grove; H. J. Hope-Johnstone, Epsom; W. Lean, 20, Regent's Park Terrace; W. Wimble, 9, Queen Victoria-street; W. F. Nokes, 21, Queen Victoria-street.

**THE STIRLING CASTLE STEAMSHIP OWNERS (Limited).**—Capital 140,800*l.*, in shares of 100*l.*. A shipowner's business in all branches. The subscribers (who take one share each) are—T. Skinner, 5, East India Avenue; G. W. Skinner, 5, East India Avenue; T. Skinner, jun., 5, East India Avenue; W. A. Skinner, 5, East India Avenue; W. Y. Morgan, 42, Cannon-street; W. Rug, 77, Onslow Gardens; W. Pearce, Glasgow.

**THE GREENFIELD MILL COMPANY (Limited).**—Capital 12,000*l.*, in shares of 100*l.*. The business of cotton spinning, doubling, and manufacturing. The subscribers (who take one share each) are—S. Horsfield, Hyde; F. Thorneley, Birkenhead; J. Ponnal, Chester; W. Morton, Hyde; J. Beard, Manchester; C. James, Manchester; A. P. Apland, Gee Cross.

**THE AFRICAN GOLD COAST SYNDICATE (Limited).**—Capital 45,000*l.*, in shares of 10*l.*. To adopt and carry into effect an agreement made between J. W. Reader of the one part and F. Grant of the other, for the purchase for the sum of 40,000*l.*, of a concession for minerals in the Ingotrow property, near Axim, on the West Coast of Africa, comprised in a certain lease, 17,000*l.* to be paid in cash and the balance in fully paid shares. To sell, lease, let, or otherwise dispose of the whole or any part of the property and business of the company, and to grant any concessions, privileges, rights, licenses, or other interests to any new or subsidiary or other company whatsoever. The subscribers (who take one share each) are—F. Grant, 4, Duncan-terrace, accountant; E. Watkins, 37, Negel-road, accountant; W. C. Cross, Peckham, gentleman; A. W. Barneweld, Peckham, clerk; C. R. A. Derby, 418, Commercial-road, gentleman; H. S. Foster, 3, Copthall-buildings, accountant; J. H. Slater, Stratford, clerk. There are no Articles of Association registered.

**A. COCKROFT AND SONS (Limited).**—Capital 50,000*l.*, in shares of 10*l.*. The acquisition by purchase or otherwise and working the Fairfield (Cotton) Mills, Queen-street South, Huddersfield. The subscribers (who take one share each) are—W. Cockroft, Huddersfield; C. Cockroft, Huddersfield; W. Haigh, Bingley; J. W. B. Winter, Halifax; J. W. Winterbottom, Huddersfield; H. Cockroft, 17, Lancaster-road; B. Gardiner, Whitby.

**THE PATENT FRESH MILK PRESERVING COMPANY (Limited).**—Capital 50,000*l.*, in shares of 5*l.*. The purchase of a patent and carrying on a business in conjunction therewith. The subscribers (who take one share each) are—F. Grant, 4, Duncan-terrace; E. Watkins, 37, Negel-road; A. W. Barneweld, Peckham; W. C. Cross, Peckham; C. R. A. Derby, 418, Commercial-road; C. Filcher, 38, Basinghall-street; H. S. Foster, 3, Copthall Buildings.

**THE SOUTH NORWAY COPPER COMPANY (Limited).**—Capital 30,000*l.*, in shares of 1*l.*. To carry out an agreement made between F. Bolton, M. Woodfield, and F. Wynne of the one part, and a trustee on behalf of the company for the purchase of certain rights and other matters therein described. To acquire by purchase or otherwise any mines, quarries, and mineral lands in Norway or elsewhere in Europe, and to develop, work, lease, mortgage, and sell, either in whole or in part, such mines, quarries, &c. The subscribers (who take 10 shares each) are—C. Wynne, Sydenham, Colonel; D. Urquhart, 10, Cheltenham-terrace, C.E.; E. J. Collis, Stourbridge, M.E.; F. Wynne, 4, The Sanctuary, C.E.; C. A. Morcing, 34, Clement's-lane, C.E.; M. Woodfield, 43, Ladbroke Grove-road, C.E.; R. Loam, Hampton-on-Thames, clerk.

**THE LANDS TRADING COMPANY (Limited).**—Capital, 500,000*l.*, in shares of 10*l.* Acquiring, developing, and trading in lands and hereditaments of any tenure in England, and any rights and interests in same. The subscribers (who take one share each) are—C. E. Robinson, 16, Old-square; F. W. Whitely, Poole; W. D. Dugdale, Poole; G. M. B. Layton, Roehampton Vale; E. A. Ryde, Balham; C. F. Dorsett, 70, Lincoln's Inn-fields; R. Trinne, 20, Beaumont-road.

**THE "HOLDERNESSE" STEAMSHIP COMPANY (Limited).**—Capital, 24,000*l.*, in shares of 100*l.* Purchasing, owning, and working said steamer. The subscribers (who take one share each) are—D. Wilson, Kingston-upon-Hull; R. Jameson, Kingston-upon-Hull; J. G. W. Willows, Kingston-upon-Hull; G. R. Sanderson, Kingston-upon-Hull; E. Carson, Kingston-upon-Hull; J. M. T. Musgrave, Beverley; R. W. Bainton, Beverley.

**THE CAXTON CLUB (Limited).**—Capital, 10,000*l.*, in shares of 10*l.* To establish and maintain a club-house in Liverpool. The subscribers (who take five shares) are—J. Mace, Liverpool; E. G. Lee-man, Liverpool; O. H. Owen, Liverpool; T. Haslem, Liverpool; J. Duffitt, Liverpool; A. C. Shaw, Liverpool; W. McCall, Liverpool.

**THE EGWIRA MINES (Limited).**—Capital 120,000*l.*, in shares of 1*l.* To carry into effect an agreement made between J. Irone of the one part and H. J. Dakin as trustee, for the acquisition of a lease of the gold mines of Insimankao, at Upper Gwerah, district of Axim, West Coast of Africa. The property comprises 1000 square fathoms, the consideration being 57,500*l.*; 28,333*l.* of which in fully-paid shares, the balance in cash. To work and develop said or any other mines, and to carry on generally all operations connected with a gold mining company. The subscribers (who take one share each) are—C. Wynne, Sydenham, Colonel; J. W. Johns, 90, Cannon-street, merchant; H. J. Dakin, Leytonstone, accountant; C. E. Thompson, 15, Clapham-road, clerk; W. J. Ruegg, Highbury, clerk; J. E. Hayne, Crouch End, clerk; F. T. Saunders, Anerley, clerk. The following gentlemen are to be the first directors—Captain R. F. Burton, Commander Cameron, Messrs. Wynne, Johns, and B. Nixon. Qualification 200 shares.

**THE STEAMSHIP "ROMANIA" COMPANY (Limited).**—Capital 20,000*l.*, in shares of 312*l.* 10*s.* Purchasing, owning, and working said steamer. The subscribers are—A. C. Laughton, Constantinople; J. Rowell, Constantinople; J. D. Russell, Constantinople; J. Taylor, North Shields; W. M. Donaldson, Liverpool; J. Hamson, Liverpool; E. Wolfgang, Liverpool.

**HIRSCH'S COPENHAGEN OIL MILLS (Limited).**—Capital 100,000*l.*, in shares of 10*l.* To acquire and continue an oil crushing business at Limehouse. The subscribers (who take one share each) are—O. V. M. Hirsch, 31, Great St. Helen's; A. F. Hirsch, 31, Great St. Helen's; M. Castle, jun., 34, Kensington-square; S. W. Horns, Dalton; J. Irvin, Greenwich; J. Kaltenthaler, 170, Belsize-road; J. Hodgson, Maidstone.

**RIO GRANDE DO SUL BAGE AND CACEQUY RAILROAD COMPANY (Limited).**—Capital 800,000*l.*, in shares of 20*l.* To acquire concessions, constructing, maintaining, and working railways in Brazil. The subscribers (who take one share each) are—F. D. Grey, Putney; J. W. Weadle, 6, Queen's Gate Gardens; A. F. Govett, 50, Thread-needle street; J. Gordon, 10, Holland Park Gardens; P. H. Cox, 4, Great Winchester-street; C. D. Rose, Bartholomew House; W. A. Thompson, Bartholomew House.

**THE LONDON AND PROVINCIAL WINE COMPANY (Limited).**—Capital 250,000*l.*, in shares of 1*l.* The businesses of wine merchants, growers, shippers, distillers, &c. The subscribers (who take one share each) are—W. H. Webb, Blackheath; C. J. Jutson, 55, Grove-terrace; W. Wild, 8, Moor-lane; S. R. Strugnell, 57, Charlotte-street; W. W. Gardner, 480, Southwark Park-road; W. Humphries, Cannon-bury; J. Jeffery, Chelsea.

**THE NORTH-LONDON LACE-PAPEL, VALENTINE, AND STATIONARY COMPANY (Limited).**—Capital 15,000*l.*, in shares of 2*l.* To purchase and continue an established business at Stoke Newington. The subscribers (who take one share each) are—G. Bunton, 118, Tackbrook-street; W. J. Meek, Stoke Newington; J. Manahl, Ramsgate; G. Borman, Canonbury; E. Williams, 528, Old Kent-road; F. H. Linnett, 55, Great Dover-street; H. Tilling, 72, Great Dover-street.

**THE ELECTRIC "SUN" LAMP AND POWER COMPANY (Limited).**—Capital 200,000*l.*, in shares of 5*l.* The business of an electric light and power company in all branches. The subscribers (who take one share each) are—J. W. Tricker, Croydon; C. W. Kirk, 148, St. Paul's-road; W. H. Jones, Barnes; E. T. Tilsley, South Wimbledon; H. Fleet, Hackney; E. Leworthy, Herne Hill; H. D. Brooke, 57, Crowndale-road.

**THE BANK OF NATIONS AND GENERAL FINANCE AND PUBLIC WORKS COMPANY (Limited).**—Capital 100,000*l.*, in shares of 20*l.* Business of agents, brokers, and bankers in all branches. The subscribers (who take one share each) are—D. G. F. Macdonald, Brighton; S. Lohmann, Surrey-lane; W. D. Gervais, Shepherd's Bush; W. R. Moore, Tottenham; E. Read, Putney; S. R. Smyth, 97, Palace Chambers; D. Channon, 31, Gracechurch-street.

**THE RAMSGATE MARINA HALL AND BATHS COMPANY (Limited).**—Capital 10,000*l.*, in shares of 1*l.* To acquire and maintain certain hereditaments, and carry on the business connected therewith. The subscribers are—G. G. Banks, Ramsgate, 100; A. R. Pite, 44, Bloomsbury-square, 100; J. B. Hodgson, Ramsgate, 100; T. R. Watkins, Ramsgate, 100; G. Vye, Ramsgate, 100; W. A. Pite, 44, Bloomsbury-square, 5; A. B. Pite, 44, Bloomsbury-square, 5.

**GALVANO-NICKEL PLATED SHEET-IRON.**—To produce nickel plated sheet metal German silver, which is comparatively costly, has hitherto been used, as the cheaper metals—as zinc, tin-plates, and others—did not answer the purpose. Lately iron plate has been successfully used, but the process of plating iron with nickel can only be conducted at a welding heat; Mr. EHREGOTT SCHRODER, of Leipzig, however, claims that his process admits of the application of the cheaper metals, as iron, zinc, or tin, for nickel plating in the most simple manner. He cleans the sheet-iron, sheet-zinc, or tin-plate by dipping in acids, grinding, and polishing, and then galvanises them directly with nickel of 1-10th millimetre thickness without having before deposited the ordinary skin of copper. Then he passes the sheets between the rollers of a rolling mill to equalise the thickness and to give the sheet a beautiful polish or surface. In treating tin-plate in this manner it may be rolled before and after the nickel plating, whereby he obtains a surface with a still better and more durable polish.

**AUTOMATIC FIRE-DAMP INDICATOR.**—To indicate automatically the presence of explosive gases, and thus lessen the risk to life through explosions, Mr. W. S. MACDONALD, of Manchester, proposes to use a hollow globe or chamber, which he attaches to one end of a bar or beam, and to the other end of the bar he attaches a counterpoise of lead or other material; this bar is balanced on a "knife edge" or other fulcrum, so that it remains in a horizontal position while the atmosphere is in its normal condition; the addition to the atmosphere of explosive gas, such as carburetted hydrogen, which is lighter than air, will cause the globe to fall and the counterpoise to rise; and the addition to the atmosphere of heavy gas, such as carbonic acid gas, will cause the globe to rise and the counterpoise to fall. This apparatus is portable, but it may be fitted in a mine or other place, and connected by wires to an electric or other indicator in any convenient position. The globe may be of india rubber or other material, and it may be attached to a cord or chain passed over a pulley and provided with a counterpoise, and furnished with an indicator or connected to a bell if desired.

Messrs. FRY, JAMES AND CO.—Copper has held a very steady course during the last half of this month, Chilean having been from 66*l.* 15*s.* to 67*l.* 5*s.*, but mostly at 67*l.* 7*s.* 6*d.*, and the latter is to-day's price. Other kinds keep steady, but business is not active in any description. Iron has shown a good deal of life in the Scotch pig market—having advanced about 2*s.* per ton from the lowest—and to-day's price is 48*l.* 10*s.* per ton, a decline of 6*d.* from the highest. Tin was sluggish until the last few days, since which a little more active buying has strengthened the market, and prices are 2*l.* a ton higher than a fortnight ago. Lead is steady, but inactive. Spelter rather easier to buy. Tin-plates are without feature.

FURNITURE EXHIBITION—AGRICULTURAL HALL. STAND 174.

## RUSTLESS IRON.

PATENTS OF PROFESSOR BARFF AND MESSRS. G. AND A. S. BOWER.

The PROCESS of COATING IRON and STEEL by these combined Patents is extremely simple and economical, requiring only specially constructed Muffle or Furnace, which is also applicable to other purposes. Small articles, not exceeding 9 ft. x 3 ft. x 2 ft., may now be treated at the Furnaces, at ST. NEOTS, HUNTS, on reasonable terms pending the erection of larger Furnaces by Licensees in various manufacturing centres. LICENSES will be granted to the Iron Trade, Hardware Manufacturers, and others on Royalties based on an average of 5 per cent value of articles to be treated, ranging from 5*s.* per Ton upwards. For Terms, Cost of Apparatus, and all other details, apply to the—

**BOWER-BARFF RUSTLESS IRON COMPANY, LIMITED**  
23, QUEEN VICTORIA STREET, LONDON, E.C.

## POTENTITE.

This unrivalled Explosive, as manufactured by the New and Perfected Machinery of the Company, is perfectly safe or transit, storage, and use, and is employed in every description of Mining or Quarrying Work, for Tunnelling, Pit Sinking, Engineering Work, and Submarine Operations, with the most complete success and satisfaction. **Potentite** does NOT contain its own MEANS OF IGNITION, is free from Nitro-Glycerine, and its SAFETY has been specially demonstrated by public experiments.

Its strength is unequalled. Its action is certain. In action it gives off neither flame, smoke, nor offensive smell. By its use labour is economised, as work can be resumed immediately after the shot is fired.

POTENTITE is specially adapted for export to hot climates, as it is unaffected by heat, and is free from dangerous exudations.

POTENTITE IS THE SAFEST STRONGEST, AND WORK FOR WORK, CHEAPEST EXPLOSIVE IN THE MARKET.

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MANUFACTURER OF

**Air Tubing and Improved Brattice Cloth,**  
Tarred, Oiled, and Non-Inflammable.



THE OILED CLOTH IS ESPECIALLY RECOMMENDED FOR DAMP MINES, AND IS ALSO A GOOD COVERING FOR SHEDS.

THE NON-INFLAMMABLE FOR THE MORE DANGEROUS MINES.

Samples and prices free, on application at the Works,

**VARLEY STREET, OLDHAM ROAD**  
**MANCHESTER.**

ALSO MANUFACTURER OF PACKING FOR ENGINES, PUMPS, &c., and STEAM HAMMER RINGS

## PATENT BRIQUETTE MACHINE.

GREAT SAVING NO WASTE COAL.

NO COLLIERY SHOULD BE WITHOUT.

These Machines utilise small coal or coke by making it into Briquettes or blocks of compressed fuel at the rate of 36,000 per day. The cost of preparing, mixing, and making is under One Shilling per ton. The Briquettes sell readily for Locomotives, Household, or other purposes. Full particulars on application to

**YEADON AND CO.,**  
**LEEDS,**  
**ENGINEERS AND CONTRACTORS,**

FOR EVERY DESCRIPTION OF PLANT FOR

**Collieries, Mines and Brickworks.**

### TESTIMONIALS

Messrs. Yeadon and Co., Leeds. HARBONNAGE DE BERNISSART, PRES PERUWELZ (BELGIUM), JANUARY 4TH, 1878. I continue to be perfectly satisfied with the work performed by the two patent Briquette Machines as well as with that of the Steam Engine, Mixer, &c., which you supplied a few months ago for the manufacture of compressed slack Briquettes, and that I can recommend them as being the best machines I know of, after having carefully studied all the Briquette Machines constructed at home and abroad.

SOCIETE DES CHARBONNAGES REUNIS DU RIEU DU CŒUR ET DE LA BOULE. QUAREGNON (BELGIUM), SEPTEMBER 13TH, 1879. Messrs. Yeadon and Co., Leeds. We are entirely satisfied with the erection and working of the two Briquette Machines, as well as the Steam Engine and Mixing Apparatus.

Messrs. Yeadon and Co., Leeds. CHARBONNAGE DE BERNISSART, PRES PERUWELZ, JANUARY 24TH, 1879. I continue to be highly satisfied with the Briquette Machines which you supplied in 1877. They do their work very well, and produce the Briquettes very regularly, and of a good quality.

Messrs. Yeadon and Co. SOCIETE HOULLERE DE VENDIN-LEX-BETHUNE, PAS-DE-CALAIS, DECEMBER 2ND, 1880. I have the honour to inform you that the Briquette Machines work very well. The Briquettes are very well made. I am highly satisfied with your workmen, who have done their work very well.

The undersigned, Civil Engineer of Mines, Chevalier of the Legion of Honor, Consulting Engineer to the Mines de Vendin-lexto, Bethune, Pas-de-Calais, certifies that the Briquette Machinery for making Briquettes of Coal, supplied by Messrs. Yeadon and Co. to the above Company is working to their entire satisfaction.

Lille, December 28. 1880.

E. LISBET.

**FRANCIS AND JENKINS,**  
GREENFIELD WORKS,  
LLANELLY, S. WALES,

MANUFACTURERS OF THE  
Improved Solid Steel Shovels, C. S. Forks, Solid Steel  
Miners' Shovels, Railway and Miners' Picks,  
Steel-pointed Spades and Shovels, Draining and Grafting Tools,

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To which special attention is given.

RABBLE HEADS, PADDLES, AND EVERY DESCRIPTION  
LIGHT HAMMERED WORK.

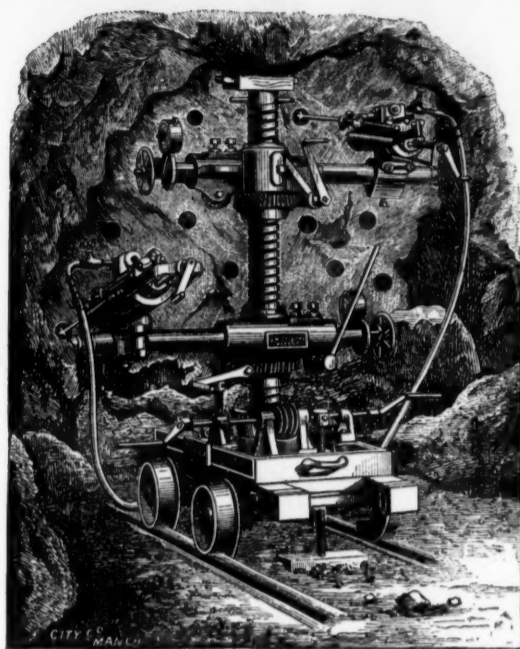


By a special method of preparation this leather is made solid, perfectly close in texture and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of—

**HEPBURN AND GALE,**  
TANNERS AND CURRIERS,  
LEATHER MILL BAND AND HOSE PIPE MANUFACTURERS,  
LONG LANE, SOUTHWARK LONDON.  
Prize Medals, 1851, 1853, 1873, for  
MILL BANDS, ROSE, AND LEATHER FOR MACHINERY PURPOSES.

# T. LARMUTH & CO.,

ENGINEERS,  
MANCHESTER, ENGLAND.



## SOLE MAKERS OF McCULLOCH'S PATENT ROCK DRILL CARRIAGE

STEAM CRANES, OVERHEAD TRAVELLERS,  
ENDLESS CHAIN ELEVATORS, AND FEED SHEETS,  
TRAVERSERS AND TURNABLES,  
Engineers' Tools of every description.  
LLOYD'S FANS,  
MINE VENTILATING FANS,  
CENTRIFUGAL PUMPS.

## MAKERS OF STURGEON'S NEW PATENT TRUNK AIR COMPRESSOR

WINDING AND PUMPING ENGINES,  
IMPROVED CONDENSING AND NON-CONDENSING HIGH-PRESSURE  
STEAM ENGINES,  
With Ordinary or Expansion Valves, Compounded on Non-Compounded  
SPECIALITIES FOR  
LEATHER BELTING MANUFACTURER

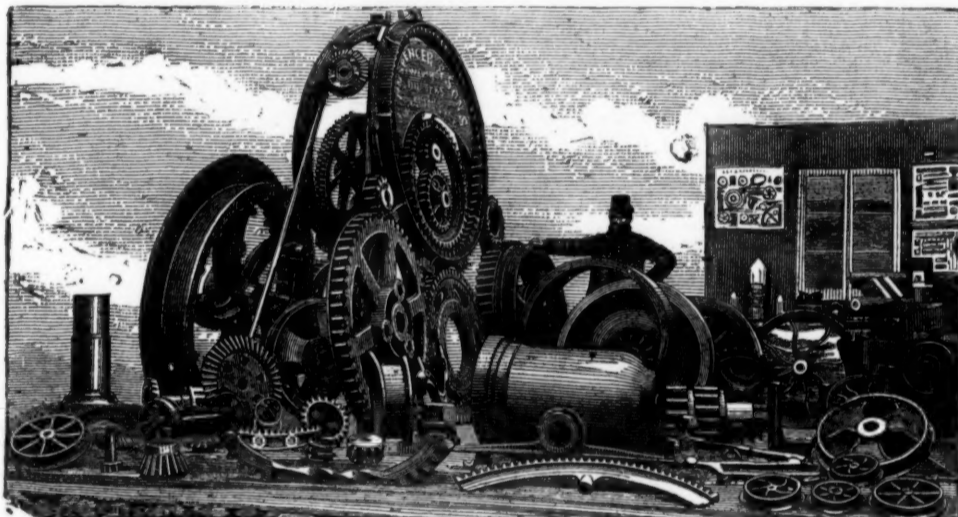
## SHAFTING, GEARING, AND PULLEYS.

Sole Makers of J. Priestman and Son's Patent Leather Striking Machines.

# JOHN SPENCER AND SONS,

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STEEL  
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WHEELS & AXLES  
FITTED COMPLETE.  
INCLINE PULLEYS AND  
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STAMP HEADS AND  
SHOES  
AND EVERY DESCRIPTION OF  
STEEL CASTINGS.



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FORGINGS.  
RAILWAY  
SPRINGS AND BUFFERS,  
JUMPER STEEL,  
MINING CAST STEEL  
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BEST CAST STEEL FOR  
TOOLS.  
IMPROVED  
VOLUTE SPRINGS

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## CRUCIBLE STEEL CASTINGS

Of all descriptions of special strength and solidity.

ALSO, MANUFACTURERS OF

BEST CAST STEEL FOR ENGINEERS AND MINERS' PURPOSES; FILES; SAWS; HAMMERS; RAILWAY SPRINGS, &c  
STEEL SHEETS AND FORGINGS.

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"R. Mushet's Special Steel," for Lathe and Planing Tools and Drills.  
THE STEEL WHICH REQUIRES NO HARDENING.

And R. Mushet's Celebrated Extra Best Welding Titanic Cast Steel  
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## JOSEPH FIRTH AND SONS' New Patent Brick-making Machine,

Embraces the following advantages—viz.:

Implicitly, strength, and durability. Compactness and excellence of mechanical arrangements, large producing capabilities, moderate cost.

It makes two bricks at once, and will make 2,000 to 14,000 plastic pressed bricks per day, hard enough to go direct to the kiln without drying; or it will make the bricks thoroughly plastic if required. For works requiring a machine at less cost the machine is made to turn out one brick at once, and is capable of producing 8000 bricks per day.

The Machine can be seen at work daily at the Brickworks of the Patentees, JOSEPH FIRTH AND SONS, WEBSTER HILL, DEWSBURY, and CROWBURY BRICK WORKS, SUSSEX; as also their Patent Gas Kiln for Burning Bricks, which possesses the following amongst other advantages, viz.:—Economy in Fuel, Rapidity and Quality of Work, even Distribution of Heat, and Total Consumption of Smoke.

W. F. STANLEY

MATHEMATICAL INSTRUMENT MANUFACTURER to H.M.'s  
GOVERNMENT, COUNCIL OF INDIA, SCIENCE AND  
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MATHEMATICAL, DRAWING, and SURVEYING INSTRUMENTS of every  
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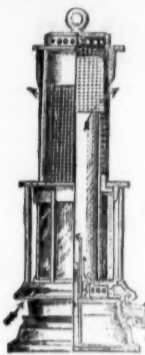
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Apply to the Clerks at the Railway Stations, the Local Agents, or  
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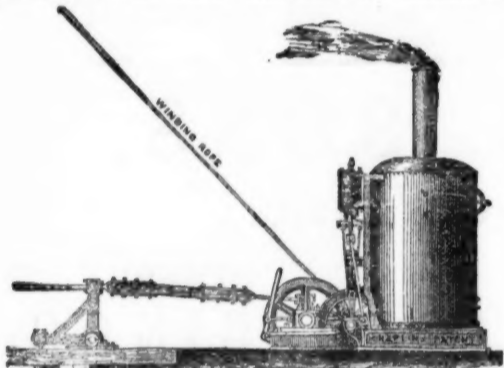
**ROOT'S PATENT**  
**TUBULOUS STEAMBOILER**  
 SAFE & ECONOMICAL  
 EASY TRANSPORT IN MOUNTAINOUS COUNTRIES  
**KNAPS PATENT MECHANICAL**  
**STOKERS**  
 APPLICABLE TO ALL KINDS OF BOILERS & FURNACES  
 ECONOMICAL AND SMOKE CONSUMING  
**THE PATENT STEAM BOILER CO.**  
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**SAFETY LAMP**  
 AND  
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 Honourable Mention, Paris Exhibition, 1878.  
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**MIDLAND DAVY LAMP WORKS,**  
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**PRIZE MEDAL—INTERNATIONAL EXHIBITION**



**CHAPLIN' PATENT**  
**PORTABLE STEAM ENGINE**  
 FOR PUMPING AND WINDING.

(SPECIALLY ADAPTED FOR PITS, QUARRIES, &c.  
 SIMPLE AND STRONG; require NO FOUNDATION  
 OR CHIMNEY STALK, and are  
 EASILY ERECTED OR REMOVED.  
 Sizes, from 2 to 30-horse power.

Steam Cranes, 1½ to 30 tons, for railways, wharves,  
 &c.; hoist, lower, and turn round in either direction  
 by steam.  
 Stationary Engines, 1 to 30-horse power, with or  
 without gearing.  
 Hoisting Engines, 2 to 30-horse power, with  
 or without jib.  
 Contractors' Locomotives, 6 to 27-horse power.  
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 Ships' Engines, for winding, cooking, and distilling,  
 passed by H.M. Government for half water.  
 Steam Winches. Engines and Boilers for  
 light screw and paddle steamers.

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 WORKS: REGENT'S CANAL DOCK, 602, COMMERCIAL ROAD EAST.

**INCREASED VALUE OF WATER-POWER.**

**MacADAM'S VARIABLE TURBINE.**

This Wheel (which is now largely in use in England, Scotland, and Ireland) is  
 the only one yet invented which gives proportionate power from both large and  
 small quantities of water. It can be made for using a large winter supply, and  
 yet work with equal efficiency through all variations of quantity down to a fifth  
 or even less if required. It is easily coupled to a steam-engine, and in this way  
 always assists it by whatever amount of power the water is capable of giving,  
 and therefore saves so much fuel.

This Turbine is applicable to all heights of fall. It works immersed in the tall-  
 water, so that no part of the fall is lost, and the motion of the Wheel is not  
 affected by floods or back-water.

References to places where it is at work will be given on application to—

**MacADAM BROTHERS AND CO.,**  
**BELFAST.**

**LIEBIG'S EXTRACT OF MEAT AND MALT WINE**  
 (COLEMAN'S).  
 A DELICIOUS BEVERAGE AND TONIC.

**IMPORTANT TESTIMONIAL.**

Queen's Crescent, Haverstock Hill,  
 London, March 5th, 1881.

DEAR SIR,—Some time since, being greatly fatigued with overwork and long  
 hours at business, my health (being naturally delicate) became very indifferent.  
 I lost all energy, strength, and appetite, and was so weak as to be scarcely able  
 to walk.

As you are aware, I sent for a dozen of your Extract of Meat and Malt Wine,  
 which, in a few days, pulled me up marvellously. Three or four glasses of it  
 daily have quite altered and restored me to better health than ever, "without  
 the assistance of a doctor."

I am now giving it to my son, twelve years of age, whom we have always  
 thought consumptive, and from a puny ailing boy he seems to be fast growing  
 into a strong healthy lad.

Enclosed you have cheque. Please send me two dozen of the "Extract." With  
 thanks for your prompt attention to my last.

I am Sir, yours truly,

GEORGE A. TYLER.

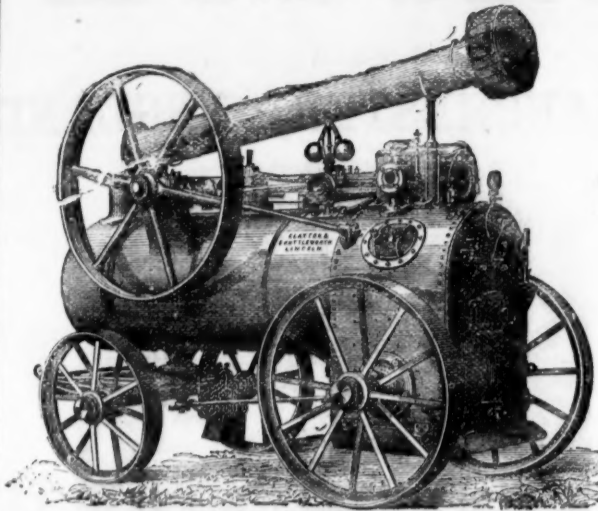
Pints, 30s.; Quarts, 50s. per dozen. Carriage Paid to any Railway Station.  
 Sample Bottle sent for 33 stamps.  
 Post-Office Orders and Cheques payable to—  
**COLEMAN AND CO.,**  
 MUSPOLE STREET, NORWICH.

Sold by all Druggists in Bottles 2s. 9d. and 4s. 6d. each. Ask for Coleman's  
 Liebig's Extract of Meat and Malt Wine, and "See that you get it."

**1880-81.—MELBOURNE (AUSTRALIA) EXHIBITION.**

Portable Engine—Gold Medal.

Thrashing Machine—Gold Medal.



The Royal Agricultural Society of England have awarded  
 Every First Prize to **CLAYTON and SHUTTLEWORTH**  
 for Portable and other Steam Engines since 1863, and Prizes  
 at every Meeting at which they have competed since 1849.

**GOLD MEDALS, AND OTHER**  
**PRIZES,**

Have been awarded to **CLAYTON and SHUTTLEWORTH** at the  
 various International Exhibitions of all Nations, including  
 LONDON, 1851, 1862; PARIS, 1855, 1867, 1878; VIENNA,  
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for their

**STEAM ENGINES, Portable and Fixed**  
 (For Coals, Wood, Straw, and every description of  
 Fuel.)

**TRACTION ENGINES, &c.**

Catalogues in English and in all Continental Languages  
 free on application.

**THRASHING MACHINES.**  
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**CLAYTON AND SHUTTLEWORTH,**  
**STAMP END WORKS, LINCOLN, & 78, LOMBARD STREET, LONDON.**

LONDON—1862.



CHILI—1875.



ESTABLISHED 1848.

**W. BRUNTON AND CO.,**  
**43, Cornwall Buildings, Queen Victoria**  
**Street, London,**  
 MANUFACTURERS OF

**ALL KINDS OF SAFETY FUSE.**

**SILVER MEDAL (HIGHEST AWARD), MELBOURNE**  
**EXHIBITION, 1881, for**

**"EXCELLENCE OF MANUFACTURE."**

Works: Penhellick Safety Fuse Works, Redruth, Cornwall and  
 Cambrian Safety Fuse Works, Wrexham, North Wales.

LIVERPOOL OFFICE—8A, ALBERT BUILDINGS, PREESON'S ROW.

PARIS—1878.



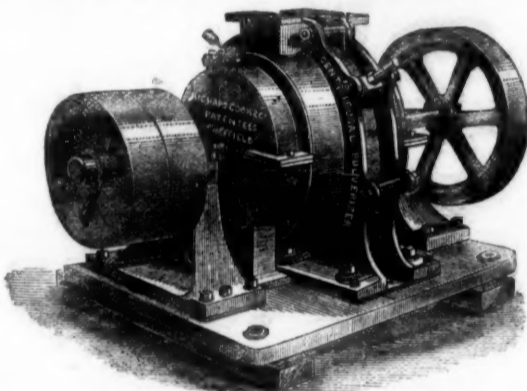
MELBOURNE—1881



**LUCOPS'**

**Patent Centrifugal Pulveriser,**

(Two tons per hour with 5 horse power  
 actual.)



For reducing to an impalpable  
 powder, or to any requisite degree  
 of fineness, all materials capable  
 of being thus treated. **CEMENT,**  
**CHEMICALS, GRAIN, COAL,**  
**COLOURS, PHOSPHATES, LIME,**  
**COPPER, TIN, ZINC, and other**  
**Ores with rapidity, completeness, and**  
**perfect uniformity.**

THE ONLY GUARANTEED MACHINE FOR

**GOLD QUARTZ.**

This mill consists of a circular iron casing, the section being elliptical in form, and is fixed vertically on a firm bed or foundation  
 plate, a shaft runs through the centre of the casing on which is keyed a series of arms, in the extremities of which revolve two or  
 more slightly oblong iron rollers, which, when put in motion, fly off from the centre and run upon the interior periphery of the  
 casing, and by centrifugal force crush and pulverise the article under treatment.

The effect produced by this system is most extraordinary in its practical results, the power required is small in consequence of the  
 comparative absence of friction from the working parts of the mill, the combined results of the rolling action of the crushers and  
 their impact by centrifugal force on the material, being the same in kind, but in degree far exceeding that of edge runners, the  
 sides of the casing are formed as open wire sieves of the degree of fineness required, and a series of propelling blades attached to  
 and revolving with the central shaft drive the material under treatment through the sieves as it is pulverised; by this arrangement  
 the degree of fineness can with certainty be arrived at from coarse to extreme fine, and that with uniformity.

Intending purchasers can at all times satisfy themselves by sending the material they wish to operate on, and seeing it pulverised  
 Over 300 in use. Prices and testimonials free on application.

**RICHARD COOK & CO., ENGINEERS, SHEFFIELD.**

LONDON, 147, QUEEN VICTORIA STREET, E.C.—R. G. FOOT, AGENT.

TELEGRAPHIC ADDRESS:—LUCOP, SHEFFIELD.

ESTABLISHED 1852.

**SYBRY, SEARLS, AND CO.,**

MANUFACTURERS OF THE

**CELEBRATED MINING STEEL, BRANDED**

**Cast Steel, Shear, Blister, Spring, Hammer, and Pick Steel.**

**Special Rock Drill Steel.**

**Mining Tools, Files, Saws, Hammers, and Picks.**

**CANNON STEEL WORKS, SHEFFIELD.**

COMPLETE WORKING INSTRUCTIONS FURNISHED.

THE DYNAMO-ELECTRIC MACHINE SUPERSEDES EVERY KNOWN BATTERY.

# WILLIAM ELMORE,

## 91, BLACKFRIARS ROAD, LONDON, S.E.

## SPECIALITIES.

## THE "Elmore" Dynamo-Electric Machine

Special Polishing Machinery and Materials.

## SPECIAL ELECTRO-DEPOSITING SOLUTIONS

For depositing **Copper** in any thickness upon rough castings or polished Iron objects of any size or weight, Locomotive Boiler Tubes, Iron Railings, Ornamental Lamp Posts, Garden Seats, Iron Sheets, and parts of heavy Iron Structures.

For depositing **Brass** upon Ornamental Iron Work, Fenders, Fire Irons, Locks, Bright Steel Goods, and upon articles made of **Lead, Pewter, Zinc, Tin, and Britannia Metal.**

For depositing **Tin** upon Bright Steel Goods, or upon rough Iron. The insides of Iron or Copper Pans, Kettles, and Culinary Utensils (Chemically pure).

For depositing **Copper** reproductions of Art Subjects, Stove and Door Panels, Plates, Medallions, &c., from Plaster, Wax, or other Moulds.

For Covering the most delicate **Ferns, Flowers, Insects, &c.**, by which perfect facsimiles can be obtained in **Copper** and finished in **Silver, Gold,** or other Metals, or various coloured oxides, forming the most elegant ornaments which can be manufactured at a nominal cost.

For depositing **Electrotypes** for Printers, Steel Plate and Bank Note Engravers, &c.

For depositing **Steel or Nickel** upon **Copper Electrotypes**, to protect the surfaces from the action of Mercurial Inks, and at the same time preserving the clear brilliancy of vermilion, and other colours having mercury in their composition.

For depositing **Tin** upon the backs of **Electrotypes**, completely superseding the old method.

For depositing **Gold, Silver, Nickel, Bronze, Zinc, &c.**, in **Electro-Plating.**

## SPECIALITIES.

## THE "Elmore" Dynamo-Electric Machine

For **ELECTRIC LIGHTING** (Arc and Incandescence) for Public Streets and Gardens, large Open Spaces, Theatres, Factories, Workshops, Hotels, Houses, &c.

ENTIRE SYSTEM COMPLETE, EFFICIENT, AND INEXPENSIVE.

Special Apparatus for the application of Ozone and other Gases for Bleaching Oils, Sugars, Fabrics, &c.

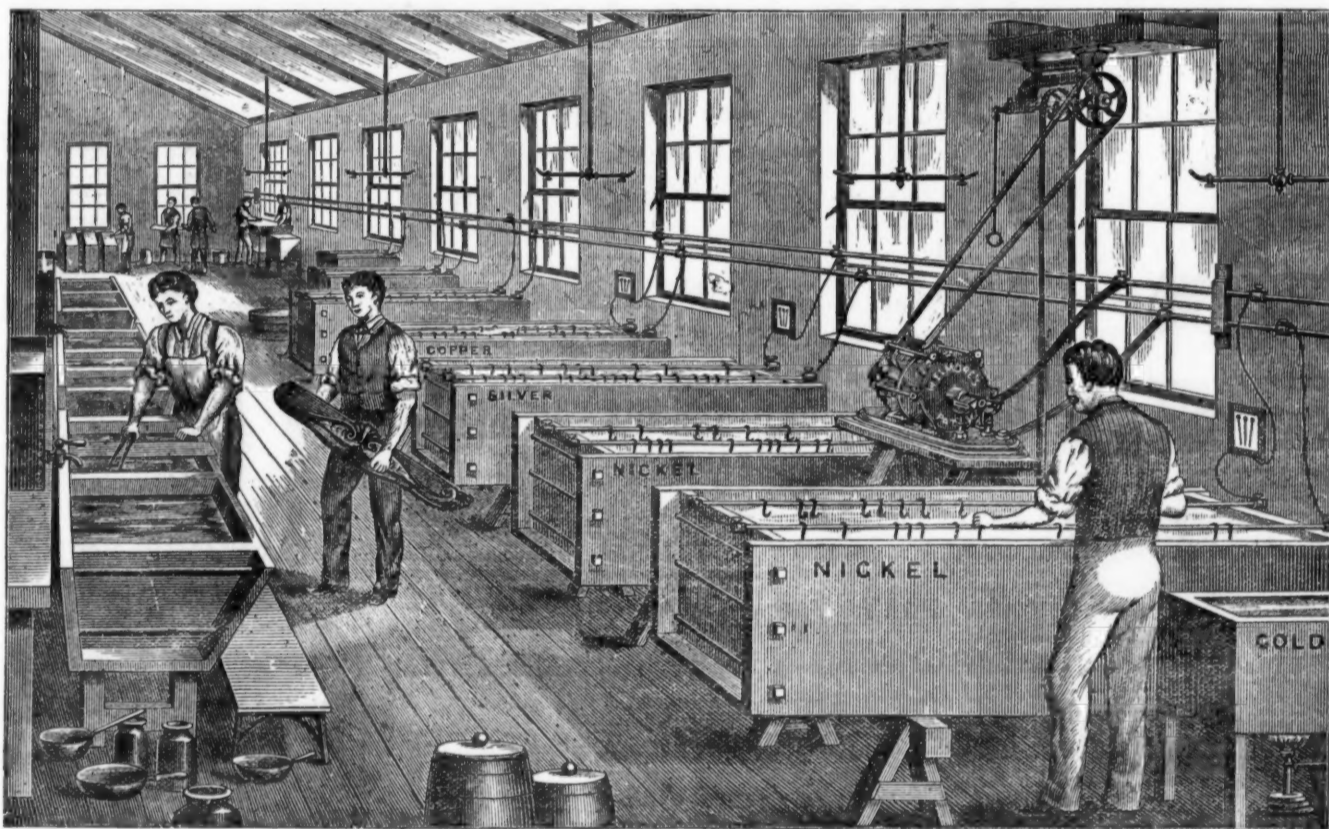
Complete Outfits. The "Elmore" Machines and appliance for **TIN-PLATE MANUFACTURE.**

Complete Outfits. The "Elmore" Machines and appliance for **GALVANIZING.**

Complete Outfits. The "Elmore" Machines and appliance for **REFINING METALS**

Complete Outfits. The "Elmore" Machines and appliance for **EXTRACTING METALS FROM ORE,**

Complete Outfits. The "Elmore" Machines and appliance for **GENERATING OXYGEN,** Hydrogen, Chlorine, Ozone, and other Gases.



The above represents an Electro-Plating Works in which an "ELMORE" PATENT DYNAMO-ELECTRIC MACHINE is being used for the simultaneous deposition of Nickel, Silver, Copper, Bronze, Brass, Gold, Tin, Zinc, &c., from their Solutions.

## TESTIMONIALS, &amp;c.

From the "HARDWARE TRADE JOURNAL."  
A MODERN PLATING ESTABLISHMENT.

"Mr. WILLIAM ELMORE, of 91, Blackfriars Road, London, S.E., is busily engaged fitting up the Art Metal Depositing Works of the Electrolytic Company, Charlotte Street, Blackfriars. The Electro-plating tanks of nickel, copper, brass, zinc, and tin, holding several thousands of gallons each (worked by an 'Elmore' Patent Dynamo-Electric Machine, capable of depositing about 500 lbs. of metal per day), and the specially designed and constructed polishing machinery will all combine to constitute this most gigantic and complete arrangement of the kind in the world. Here boiler tubes, each over 20 ft. in length, may be coated with copper, large ornamental iron lamp posts, and similar massive iron structural objects of great weight may be covered with electro-deposited copper, forming, when finished, a complete shell of bronze, which may be nickel-plated, or even silver-plated, if desired. Large rough or polished iron surfaces may be coated with brass, or zinc, or tin. Copper electrolytic copies are taken of art subjects, the reproduction being so perfect that the process is used for multiplying plates from which bank-notes are printed, and the most delicate ferns, flowers, leaves, and insects are coated with copper, and afterwards with gold, silver, nickel, &c., for use as ornaments of various kinds. Fenders, fire-irons, grates, &c., may be brased. The largest marine engines may be nickel-plated in the large nickel-plating plant, worked by the powerful 'Elmore' machine with ease and certainty, which only a few months since would have been pronounced almost impossible. The Electrolytic Company, we understand, express perfect satisfaction with the work already completed by Mr. Elmore, and there is no doubt that with that gentleman's large practical experience the company could not have been in better hands. The entire premises will be lighted by the 'Elmore' system of electric light."

From the "LONDON MINING JOURNAL."

"The new 'Elmore' Dynamo-Electric Machine can be seen in operation in London, and is considered one of the most wonderful scientific apparatus which has yet been brought before the public; it should be inspected by all who are interested in any kind of metallurgical operations."

"Mr. ELMORE has just received two pieces of ordnance from Her Majesty's Works at Chatham, with an order to nickel-plate the same, together with the carriages upon which they are mounted. Mr. Elmore has done similar work for the Government on previous occasions, and it will be remembered that the screw propellers used on the torpedo boats were nickel-plated by him. The 'Elmore' Dynamo-Electric Machines and complete electro-plating outfits have been supplied to Government Departments at home and abroad."

From the NICKEL PLATING COMPANY, 13, GREEK STREET, SOHO.

Your Machine does its work most satisfactorily, and has never once reversed current, which the Weston Machine frequently did."

From the ELECTROLYTIC COMPANY,  
ART METAL DEPOSITING WORKS,  
CHARLOTTE STREET, BLACKFRIARS, LONDON.

"The 'Elmore' Dynamo-Electric Machine and entire outfit which you have supplied to this company have given perfect satisfaction."

From the NICKEL AND SILVER PLATING WORKS,  
2, CHARLES STREET, CURTAIN ROAD, E.C.

"Having had one of the 'Elmore' Patent Dynamo-Electric Machines in constant use for several months, it gives me great pleasure to say that with it I have been able to deposit four times the weight of metal per day which I had been enabled to do with the Dynamo-Electric Machine, which it has displaced in my establishment."

From the LONDON NICKEL PLATING COMPANY.

"We have much pleasure in expressing our entire satisfaction with the nickel-plating solution, anodes, and Dynamo Machine that you have supplied us with."

From the DYNAMO-ELECTRIC PLATING WORKS,  
2, OLD SWAN LANE, LONDON.

"The quality of the nickel solutions and anodes at these works, which were supplied by you, is most satisfactory in every way. The Dynamo Machine also works excellently, and has given no trouble whatever since it has been started."

AND MANY OTHERS.

Dynamo-Electric Machines, Outfits, &c., supplied to (London) Messrs. Thos. De la Rue and Co., Cassell, Petter, and Galpin, The India Rubber Company (Limited), Silvertown, The Nickel Plating Company, Joseph Woodricka, Kelly and Co., A. S. Cattell and Co., &c., &c., (Birmingham) Messrs. Wright and Butler, Joseph Woodward, The Griffin Gilding and Plating Company, and over 500 others.

SEND FOR COMPLETE DESCRIPTIVE CATALOGUE, PRICE 6D.

WILLIAM ELMORE, 91, BLACKFRIARS ROAD, LONDON, S.E.

COMPLETE WORKING OUTFITS SUPPLIED.

COMPLETE WORKING INSTRUCTIONS FURNISHED.

ROYAL AGRICULTURAL SHOW, READING, July 10 to 14 inclusive—Stand 271.—MACHINERY IN MOTION DEPARTMENT.—H. R. MARSDEN will exhibit IN FULL OPERATION his new patent Fine Crusher or Pulveriser, 12 by 3 inches at the mouth; also his Improved Patent Stonebreaker, 15 by 10 inches at the mouth. Parties interested are invited to bring samples of material, and to see them reduced.

PARIS EXHIBITION, 1878. GAINED THE GRAND PRIZE. THE TRIPLE AWARD. Gold Medal, Silver Medal, and Honourable Mention in competition with all the World.

THE BLAKE-MARSDEN NEW PATENT IMPROVED STONE BREAKERS AND ORE CRUSHERS.

ORIGINAL PATENTEE  
AND ONLY MAKER.

ALSO PATENTEE AND ONLY  
MAKER OF THE

# H. R. MARSDEN, NEW PATENT FINE CRUSHER OR PULVERIZER,

FOR REDUCING TO AN IMPALPABLE POWDER, OR ANY DEGREE OF FINENESS REQUIRED,

GOLD QUARTZ, SILVER, COPPER, TIN, ZINC, LEAD,

AND ORES OF EVERY DESCRIPTION;

Also Cement, Barytes, Limestone, Chalk, Pyrites, Coprolite, &c., &c. These Machines are in successful operation in this country and abroad, and reference to users can be had on application.

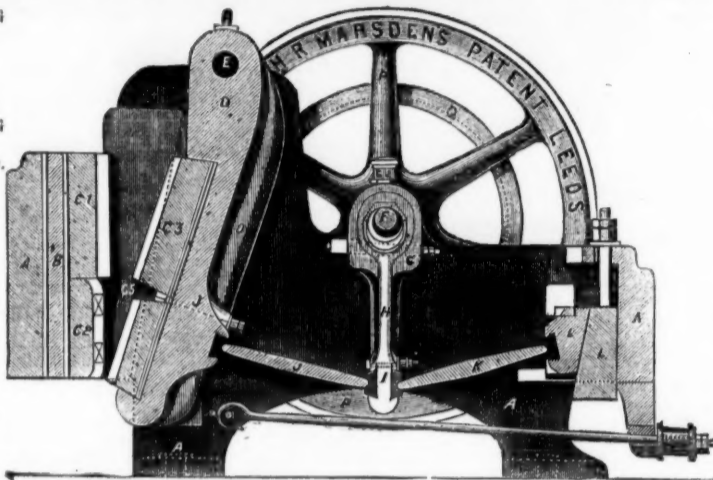
PATENT REVERSIBLE CUBING and CRUSHING  
JAWS, IN FOUR SECTIONS,  
WITH PATENT FACED BACKS, REQUIRING  
NO WHITE METAL IN FIXING.

NEW PATENT CRUCIBLE CAST-STEEL CONNECTING  
RODS.  
NEW PATENT RENEWABLE TOGGLE CUSHIONS, &c.

OVER 4000 IN USE.

EXTRACT FROM TESTIMONIALS.  
PULVERISER.

"I have great pleasure in bearing testimony to the merits and capabilities of your patent combined fine crusher and sieving apparatus. I have tried it on a variety of ores and minerals, and it pulverizes them with equal success. You can put in a small paving stone, and bring it out like flour."  
"The power required to drive it is very small, being from 4 to 6-horse, and the repairs are almost nil."  
"I am sure the machine will be a success, and a great one, and there is any amount of demand for such a machine. We can work it with 20 lbs. of steam, and our engine, which is a 12-h.p., plays with the work, in fact we run the Stonebreaker and the Pulveriser both together with 35 lbs."



FOR CATALOGUES, TESTIMONIALS, &c., APPLY TO THE SOLE MAKER,

H. R. MARSDEN, SOHO FOUNDRY, LEEDS.

AWARDED OVER

60

FIRST-CLASS GOLD AND SILVER MEDALS.

ADOPTED BY THE PRINCIPAL CORPORATIONS, CONTRACTORS, MINING COMPANIES, &c., IN ALL PARTS OF THE WORLD.

ROAD METAL BROKEN EQUAL TO HAND, AT ONE-TENTH THE COST.

EXTRACTS FROM TESTIMONIALS.

STONEBREAKER.

"The 15 x 8 stonebreaker gives perfect satisfaction. It produces a more cubical stone than any others I have seen at work."

"Your 15 x 10 machine makes the best road metal I have ever seen put through a machine—in fact, comparing favourably with hand broken."

"Your 10 x 7 crusher at the Aruba Gold Mines will crush 90 to 100 tons per 24 hours of the hardest gold quartz to 1" size."

"Some of your testimonials do not give your machines half their due. I have seen men hammering away on a big rock for a quarter of a day which your machine would reduce to the required size in a quarter of a minute. I would guarantee that your largest size machine would reduce more of the Cornish tin capels (which is the hardest rock of England) in a day than 200 men, and at 1-25th the cost."

GREATLY REDUCED PRICES ON APPLICATION.

## JOHN CAMERON'S

FLY-WHEELS ON BOTH SIDES.

SPECIALITIES ARE HIS

### STEAM PUMPS

FOR

### COLLIERY PURPOSES.

Specially adapted for forcing Water any height

ALSO, FOR

### SINKING, FEEDING BOILERS AND STEAM FIRE ENGINES,

which he has made over 8000.

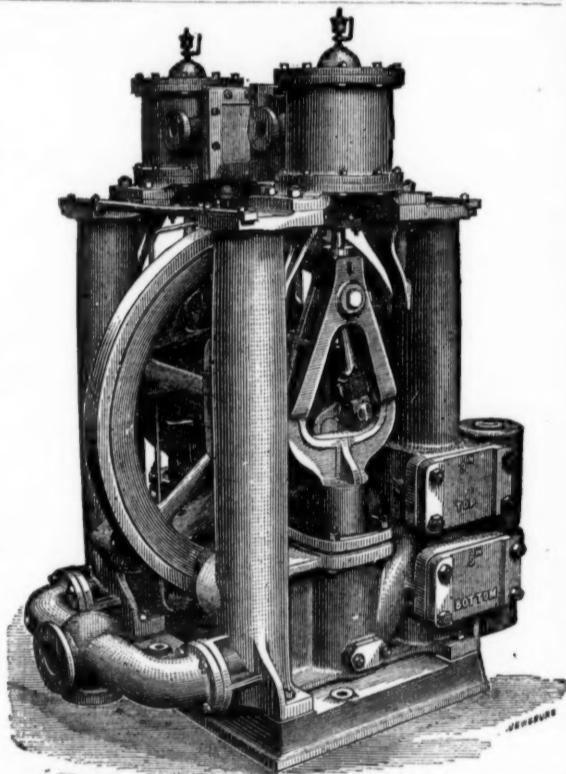
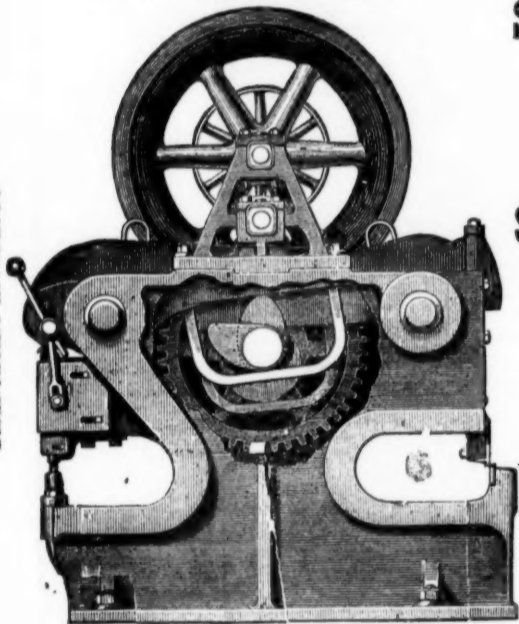
ALSO, HIS

PATENT CAM AND LEVER

PUNCHING AND SHEARING MACHINES.

Works: Oldfield Road, Salford,  
Manchester.

DISENGAGING APPARATUS



### "KING AND HUMBLE'S" PATENT DETACHING HOOK

To prevent over winding

### PATENT SAFETY CAGE,

suspend in Shaft in cases of fracture of Winding Rope

Winding and Hauling Engines,  
Special Centrifugal Pumps,  
Weighing Machines,  
Steel Castings, Mining Steel and Tools,  
Winches, Steel Shovels, Pulleys,  
Mining Machinery of every description.  
Brick Machinery and Mortar Mills.

Stephen Humble, Engineer, Derby.



HULME & LUND'S SPECIALITIES.  
DONKEY PUMPS, MINING PUMPS,  
HORIZONTAL PUMPS, TAR PUMPS,  
AIR COMPRESSORS,  
FIRE ENGINES, STEAM ENGINES.  
WILBURN IRON WORKS  
SALFORD, MANCHESTER.

ENGLISH CAPITALIST wishing a CORRECT REPORT on the SILVER MINES of COLORADO will do well to apply to—Capt. DANIEL ROBERTS, Georgetown, Colorado.

## THE "CHAMPION" ROCK BORER

MINES AND QUARRY STANDS, STEEL DRILLS, SPECIALLY PREPARED INDIAN RUBBER HOSE, TESTED IRON PIPES, &c.



### Air-Compressing Machinery,

Simple, strong, and giving most excellent results.

Full particulars of rapid and economical work effected by this machinery, on application.

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## J. WOOD ASTON AND CO., STOURBRIDGE

(WORKS AND OFFICES ADJOINING CRADLEY STATION),

Manufacturers of

### CRANE, INCLINE, AND PIT CHAINS.

Also CHAIN CABLES, ANCHORS, and RIGGING CHAINS, IRON and STEEL SHOVELS, SPADES, FORKS, ANVILS, VICES, SCYTHES, HAY and CHAFF KNIVES, PICKS, HAMMERS, NAILS, RAILWAY and MINING TOOLS, FRYING PANS, BOWLS, LADLES, &c., &c.

Crab Winches, Pulley and Snatch Blocks, Screw and Lifting Jacks, Ship Knees, Forgings, and Use Iron of all descriptions

WELDED STEEL CHAINS { FOR CRANES, INCLINES, MINES, &c., MADE ALL SIZES.